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ABSTRACT

Covering the period of June 1974 to June 1975, the report and final evaluation document the second year operation of a career education counseling project in the Corpus Christi Schools. The components of the project emphasized awareness and career orientation for K-6, established career resource areas in junior high school libraries, and developed career guidance and placement centers in the senior high schools. Job preparation training for out-of-school youth was provided during evening hours. Appendixes include student and teacher resource lists (20 pages) and sample career guidance materials (8 pages). The final evalution report (30 pages) presents questionnaire items and rating scales used in the evaluation. The statistical report (155 pages) presents 90 tables which describe the results of questionnaires from each grade level and highlight the individualistic nature of the program which was altered to fit the needs of each school and grade. Appended to the evaluation are student and teacher participation instruments as well as the norm data. (Author/NJ)

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INTERIM REPORT

A CAREER EDUCATION COUNSELING PROJECT

Corpus Christi Independent
School District
Corpus Christi, Texas

Division of Instruction
August, 1975

CE 006 315

U.S. DEPARTMENT OF HEALTH,
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INTERIM REPORT

Project Number F6-006-VW
Grant Number OEG-0-73-5255

A Career Education Counseling Project

Exemplary Project in Vocational Education
Conducted Under
Part D of Public Law 90-576

C. Thomas Cron, Ed.D.
Corpus Christi Independent School District
P. O. Box 110
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August, 1975

VT 102516

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The project reported herein was performed pursuant to a grant from the Office of Education, U.S. Department of Health, Education, and Welfare. Contractors undertaking such projects under Government sponsorship are encouraged to express freely their professional judgment in the conduct of the project. Points of view or opinions stated do not, therefore, necessarily represent official Office of Education position or policy.

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August, 1975

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Summary of the Report

Period Covered: June 4, 1974 to June 3, 1975

Goals and Objectives

To increase the level of knowledge of counselors and teachers with respect to

- career characteristics
- career requirements
- resource materials available for use in career education

To increase the career awareness of elementary students with respect to

- wide variety of career choices
- characteristics descriptive of the major career clusters

To develop within students favorable attitude toward the personal, social, and economic significance of work.

To improve the decision-making skills of students.

To increase the level of knowledge of secondary students with respect to career characteristics and requirements by providing opportunities for

- utilizing resource materials
- participating in field experiences
- engaging in exploratory programs as a part of classroom experiences

To increase each student's self-awareness in terms of his

- abilities
- interests
- attitudes

To enable each secondary student to make appropriate career related choices as evidenced by his

- selecting a target career cluster which is consistent with his abilities, interests, and attitudes
- selecting a path of academic and technical training appropriate for his selected career cluster(s)

To enable each exiting student to be placed in a

- job
- post-secondary technical training program, or
- baccalaureate program

Procedures

The project centered on orienting the counseling staff to serve as catalysts for implementing a career oriented curriculum. The K-6 component emphasized awareness and career orientation. During the early grades, stress was on developing the child's career awareness with respect to the variety of career choices available. The upper elementary program featured extensive use of community resource people and utilization of materials designed to improve decision-making skills. The present counseling staff was trained to facilitate the career education and guidance process, under the supervision of a career guidance consultant. A career education resource area was established in junior high school libraries to facilitate career exploration. The Centers housed materials designed to assist students in relating instruction to career clusters. Junior high school counselors were trained to assist students and teachers in the use of career oriented materials. A career guidance and placement center was established in each senior high school. Career specialists work as resource persons to the secondary school population. The total counseling staff received training in career guidance to facilitate their role as catalysts in developing a career oriented high school curriculum. Job preparatory training for out-of-school youth was provided during the evening hours in existing facilities. Any preparatory training the Corpus Christi Independent School District was unable to offer, was offered by the local junior college through mutual cooperative agreement between the District and Del Mar College.

Results and Accomplishments

The second year of the project focused on implementing career education concepts into 19 new project schools, while maintaining and improving activities in the 24 first year schools. A continuing effort was made to clarify role and function of key personnel. Other activities included:

- expanding community involvement
- assisting with the planning and/or conducting of staff development programs
- evaluating program development
- reporting project progress

Current materials and literature were continually reviewed by the project staff. Seventeen documents have been developed to aid administrators, supervisors, teachers, counselors, and other school personnel in setting up and developing a career education program.

ELEMENTARY COMPONENT (K-6). The elementary career guidance consultant uses two basic approaches to accomplish project objectives. These are:

- Weekly classroom sessions, through the social studies curriculum, at which time a variety of approaches are used to stress aspects of career awareness. The sessions are planned at grades 1, 3, and 5 in 28 project schools, or approximately 265 classrooms.
- "It's Great To Be," a game approach occurring once monthly in grades 5 and 6, utilizing persons from the community who are representative of the career clusters. A total of approximately 50 guests appeared each month, or 2 guests for each of the 28 project schools. This activity occurred in approximately 196 classrooms.

SECONDARY COMPONENT (7-12). Various delivery systems were used by secondary schools to meet project objectives. These included: utilization of resource and/or career centers, community speakers and field trips, utilization of curriculum guides and project documents, counselor initiated programs and a campus career fair. The three secondary career specialists provided services to administrators, teachers, counselors and students. Particularly noteworthy is the number of teachers and students using the high school career centers.

The placement component of the high school career centers continues to be an important source in providing employment experiences to individual students.

Evaluation

The following observations and summative statements were made by the third party evaluator.

- The project has progressed to a level of interpretation that identifies what is going on in various levels of the project; various strands and program elements.
- Teachers, regardless of grade, implementation year, or group, generally use printed materials to enhance career education.
- Generally, all groups perceive interweaving career education into the regular curriculum. (This would seem to indicate that the true objectives of career education are really being met at all grade levels).
- Generally, teachers feel they have a good understanding of the world of work.
- At grade 3, second year groups perceived their students as meeting Career Education objectives to a greater degree than year one groups.
- At grades 5 and 9, second year groups were lower in their perceptions of students meeting Career Education objectives, than were year one groups.
- Grade 11 groups generally perceive their students meeting Career Education objectives to a higher degree than other grades.
- With the exception of objectives 4, 7, and 9 at grades 3 and 5, teachers perceive that more than 50% of the students meet or exceed the stated Career Education objectives.
- Second year pupils in grades 3 and 5 scored higher than first year pupils on 24 of the 34 items and 25 of the 34 items, respectively.

Conclusions

On the basis of observations and data collected, the following conclusions were made:

- The response by students, teachers, counselors and administrators to materials and services provided by the project staff are very favorable.

- The use of a variety of delivery systems (e.g., special materials, career-oriented lessons, units within courses, interdisciplinary units, role models, career centers, group counseling, etc.) for achieving career development goals appear to be a valid approach to successful program implementation.

- Data indicates that students like and appreciate the opportunity to experience decision-making strategies.

- A variety of teacher options regarding staff development (e.g., mini-grants, special needs program, campus seminar, workshop, etc.) is important to the implementation of career education concepts.

- The use of role models from business, labor, and industry is an effective means to assist individuals in their search for meaning in life and to prepare them for a life style.

- The career education change agent (whether teacher, counselor, administrator, or a team) has to possess a variety of process and content skills.

Recommendations

The conclusions that were drawn from the second year of the project provided the following recommendations:

- It is recommended that school personnel continue to find ways to help students utilize the services available to them.

- It is recommended that the local community continue to be made aware of the concepts, rationale, and ways in which school and community can cooperate to promote the career development of individuals.

- It is recommended that the District's Leadership Team consider methods for moving career education from the project phase to the program phase during the final year of the grant.

- It is recommended that the counselor's role and function continue to be reviewed in order to operationalize a total guidance-based career education model.

- It is recommended that a campus planning model i.e., establishment of goals, carrying-out needs assessment, development of program structure and evaluation, continue to be utilized for career education program implementation.

- It is further recommended that principals establish a system for evaluation, monitoring, and feedback that meets the needs of their faculty.

CHAPTER I

THE PROBLEM

The career and occupational theorists provide us with distinct elements to consider in a career education program: development of an accurate, positive self-concept, factual and realistic occupational awareness, and a need to develop within each student a cognitive structure for making rational occupational decisions.

Currently in the Corpus Christi Independent School District there exist at least five distinct roadblocks to the immediate implementation of career education.

Due to the large percentage of the population which falls below the minimum income level, students from these families have a distinct disadvantage due to their lack of exposure to productive and successful worker models. As a result, imitation learning for these students is currently limited to a large degree to the narrow scope of career opportunities which is encompassed by those workers around them (Havinghurst, 1964).

Related to this is the lack of exposure of students from low income areas to a general awareness of occupational choice. Economic impoverishment precludes generally the kinds of experiences which permit students to be exposed to different life styles and cultural work patterns and philosophies.

A third area is the degree to which non-college bound students receive counseling and guidance. Several reports indicate that nationally the college-oriented student is the most frequent recipient of counseling services. There is little reason to suspect that the same is not also true in Corpus Christi.

Finally, students in the Corpus Christi I.S.D. for the most part commit themselves to either vocational or academic education (in essence, a categorical career decision) in the ninth grade. Two studies (Super and Overstreet, 1960; Flanagan, 1966) indicate that the typical ninth grader has such unstable interests as to suggest the prematurity of their making specific vocational choices.

One other problem of counselor re-education deserves special emphasis. Without the redirection of counseling activities to meet these defined needs, the problem will continue to exist. Re-education of counselors and of teachers through the counselors is essential to the success of this project. These five problems (non-exposure to successful work models, non-awareness of occupational choice, guidance services oriented toward the college-bound, decision-making weakness of students, counselor re-education) merit the most significant attention. Quite obviously, students in every case need a program which dissolves the deficiencies present either in self-awareness, occupational awareness, economic awareness, or decision-making skills.

Related Research

The source of the problem concerning the need for career education in the Corpus Christi Independent School District can be found by exploring the theoretical framework underlying the career education concept. Osipow (1968) identifies four predominant groups of theorists concerning occupational choice. The trait-factor theorists (Parsons, 1909; Kitsen, 1915; and Hall, 1928) contend that an individual must have a clear understanding of himself, his abilities and limitations as well as a full knowledge of the elements of different occupations open to him. His choice of an occupation then becomes a function of the interactions of these two sets of data.

The second group of theorists, the personality theorists (Roe, 1957; Holland, 1959) propose that occupational choice is dependent upon the degree to which a given occupation will satisfy an individual's needs. Obviously, lower order needs must be met before higher order needs such as understanding, beauty, and ultimately self-actualization can be attended to.

The developmental theorists (Ginzberg, et. al., 1951; Super, 1953) believe that individuals develop more sharply defined self-concepts as they mature. They compare their self-concept with their perception of occupations in making a career choice. Clearly, the relevancy of the decision to the individual hinges on his ability to accurately conceptualize his image of his true self as well as his image of his choice of occupations.

Finally, the sociological theorists (Miller and Form, 1951; Caplow, 1954; Blau, et. al., 1956) suggest that an individual's environment is the primary determinant in career selection. If this is the case, then the logical action for an individual is to develop strategies to aid in coping with his environment.

While there are, of course, differences in these four theoretical approaches, there do exist common, unifying concepts. Each acknowledges the interaction of the individual and the occupational influences. The interaction is affected by some type of satisfaction determinant and explained by specific concepts of occupational choice.

Recent writings on the topic of career education reveal that programs are being implemented that intergrate career concepts into the curriculum of schools from kindergarten through adult education (Smoker, 1974; Peat, Marwock and Mitchell, 1974; Moore, 1974). Programs are designed to provide students an opportunity to gain knowledge about the world of work, to have a broader view of occupational categories, to have hands-on experiences in occupational situations, to understand the importance of work in this society, and to develop a set of attitudes and values which make work possible, important, meaningful, and satisfying.

Background Information

The concept of career education began gaining momentum in the Corpus Christi Independent School District during the fall semester of 1972. Several specific activities were initiated by the District to demonstrate their commitment. First, a proposal seeking Federal funds was prepared and submitted in December, 1972. Second, a pilot career education program supported by the Region II Education Service Center was implemented in seven elementary schools in January, 1973. Finally, the secondary curriculum was redefined during the spring of 1973 into courses from which students could choose those relevant to their needs, aptitudes, interests and career objectives.

An important segment of a comprehsneive career education program, but included only in part in the activities of this project is the District's vocational and industrial education program involving over 4,500 secondary pupils.

In May, 1973, the District received a grant of $153,342.00 to implement a Career Education Counseling Project supported under Part D of the Vocational Education Amendments of 1968. A project coordinator was selected in June, 1973, and the other staff members specified in the proposal were employed during the summer. This staff planned and developed a framework booklet for implementation of the project. Faculty orientation sessions were begun in August, 1973.

Site Information

The Corpus Christi Independent School District includes, for grades K-12, 38 elementary schools, 12 junior high schools, 5 senior high schools and 1 secondary level alternative school. The district's 43,415 enrollment reflects a 60.5% minority student population, including 54.96% Mexican-American and 5.63% Negro-American, by

October, 1974 figures. Corpus Christi is an urban area with a population of 204,525 (1970 census). Approximately 146,000 residents of Corpus Christi are within Corpus Christi Independent School District boundaries. The median family income for the school district is $7,806, based on 37,916 families with an average of 3.85 persons per household. Of families residing within the district, 26% have incomes under $5,000; 35% have incomes above $5,000 but less than $10,000; 35% have incomes above $10,000 but less than $25,000; and 4% have incomes above $25,000. (Figures based on 1970 census tract information). The incorporated limits of Corpus Christi include a number of private schools, as well as parts of four additional independent school districts, all of which were in existence in suburban communities before extension of city boundaries and which have maintained their separate structure. While the Corpus Christi Independent School District includes the heart of the city, there is no "inner city" area as such, although there are poverty areas. Corpus Christi is a major port city; the seat of county government, business and trade; and includes a city-supported junior college, a state-supported upper-level university, and a variety of well-established cultural institutions.

The initial goals and objectives of the career education project, as stated in the original proposal, are as follows:

Staff

To increase the level of knowledge of counselors and teachers in respect to

- career characteristics
- career requirements
- resource materials available for use in career education

Elementary Component

To increase the career awareness of elementary students with respect to

- wide variety of career choices
- characteristics descriptive of the major career clusters

To develop within students favorable attitude toward the personal, social, and economic significance of work.

CHAPTER II

METHODS AND PROCEDURES

The purpose of the Career Education Counseling Project is to acquaint students with the world of work and to prepare them for entering and advancing in chosen careers. Opportunities are provided for increasing the self-awareness of each student and in developing and practicing appropriate career decision-making skills. Students are given information about jobs and also help in developing attitudes about the personal, psychological, social, and economic significance of work. The project is based on a strong emphasis on guidance and counseling at every level. The staff works closely with the business community and the local community college. This chapter describes the general project design and the procedures and methods used to fulfill project objectives.

Staff and Student Participants

The staff for the project consists of the coordinator, an elementary career consultant, three career specialists, a project secretary and five secretaries who work in the high school Career Guidance and Placement Centers. The staff has the overall responsibility for project administration, evaluation, reporting, and for serving as resource persons.

The project staff should directly or indirectly have a significant impact on the following:

School Staff:

- All elementary school teachers and counselors in the 28 project schools (615)
- All junior high school teachers and counselors in the 10 project schools (483)
- All senior high school teachers and counselors in the 5 project schools (505)

Students:

- All elementary students in grades 1, 3, 5, and 6 at the 28 project schools (grade 1 - 2,088 pupils, grade 3 - 2,025 pupils, grade 5 - 2,413 pupils, grade 6 - 2,408 pupils) goals and objectives of the effort will be the same as for the school year 1973-1974, but the scope of the activities associated with each objective will increase.

More specifically, beginning in August, 1974, the major activities will be as follows:

- To continue the momentum of the project in the 24 schools served last year. Activities will center on strengthening the initial efforts by teachers and counselors in these schools.
- To implement the program successfully into 14 additional elementary schools this year. The booklet "A Framework for Developing Career Education K-6" will be used to give teachers, counselors, and principals direction for implementation of career education concepts. The elementary career consultant will direct orientation and demonstration sessions for each school.
- To implement the program successfully into 5 additional junior high schools this year. Planning sessions for each faculty will emphasize the correlation of materials with the present curriculum. Some variations in teaching strategies will be used across schools as a means to select successful classroom practices to meet stated objectives.
- To expand community involvement in order to increase work experiences for secondary students. Activities will be coordinated through the high school Career Guidance and Placement Centers.

During the year the project staff will provide ongoing staff development to teachers, counselors, and administrators. Consultants from the Division of Instruction will be co-developers of the staff development programs with the project staff.

information on career exploration and choices.

High School Component

In the career education high school component, (10-12) there is an organized program so structured that a student may intelligently progress in the direction of a cluster of occupations while other students actually may choose a career.

A career guidance and placement center under the direction of the career specialist provides a wide variety of selected materials to assist students and teachers. Assessment is an integral part in helping individuals make appropriate career decisions.

The job placement feature is available for both in-school and exiting students. This gives additional preparation and training for in-school students, and ensures exiting students either (a) a job, (b) a post-secondary vocational or technical program, or (c) a baccalaureate program. In close coordination with local school programs and agencies, job opportunities are ascertained and interviews are arranged between possible employers and applicants.

The project outcome is for each student to develop competencies requisite for living and for earning a living. Provision for a variety of experiences enables them to make a career choice and/or prepare for career advancement. Through extensive exploration of selected occupations, students become aware of a larger number of occupations and careers and acquire competencies and/or academic background necessary for their chosen career.

Out-of-School Youth Component

Through the guidance services in the high schools, and with the assistance of the local employment commission, out-of-school youth under the age of 21 are provided the opportunity to enter job preparatory training courses during the evening hours in existing facilities. All of the materials and services of the career guidance and placement center in the high schools are available.

Parallel to, but separate and apart, is a work study program for school dropouts operated on a twelve month basis. This separately funded program provides coordinated on-the-job training with related studies being held in the evening hours under the direction of a vocationally qualified and certified instructor-coordinator.

Staff Development

The District's Professional Renewal Options Plan (see Appendix A) provides flexibility to the staff in meeting individual and faculty

- All junior high school students at the 10 project schools (grade 7 - 3,169 pupils, grade 8 - 2,872 pupils, grade 9 - 2,670 pupils)
- All senior high school students (grade 10 - 3,511 pupils, grade 11 - 3,092 pupils, grade 12 - 2,805 pupils)

Major Program Activities:

Elementary Component

The K-6 career education program emphasizes the development of an awareness of self and careers, an understanding and appreciation for the dignity of work, and the personal and economic relationship of work. Awareness is related through group process - - in small groups, classroom size groups, and larger groups when appropriate.

Materials to stimulate self-awareness, understanding of others, self-responsibility and motivation are used extensively. The materials are selected from those used in other career awareness projects and those available from reliable commercial sources. Demonstrations on the use of materials are presented in each school by the career consultant.

The upper elementary program features extensive use of resource people from the community using a game approach as well as the utilization of materials designed to improve students' decision-making skills.

Junior High Component

The career education junior high component (7-9) provides input and continuity to the program begun in the elementary school. In this phase of the program, the individual is exposed to a wide variety of careers, their requirements and rewards. In order to accomplish this, it is necessary to redirect the junior high school curriculum to place a greater emphasis on career orientation and meaningful exploratory experiences for all students.

Career investigation and exploration is carried on by the student through use of the resource materials in the library resource center and through classroom activities directed by the counselor and classroom teachers. Included in the materials are those relating to occupational clusters. Resources consisting of books, films, filmstrips, kits, and simulation materials give students additional information on career exploration and choices.

High School Component

In the career education high school component, (10-12) there is an organized program so structured that a student may intelligently progress in the direction of a cluster of occupations while other students actually may choose a career.

A career guidance and placement center under the direction of the career specialist provides a wide variety of selected materials to assist students and teachers. Assessment is an integral part in helping individuals make appropriate career decisions.

The job placement feature is available for both in-school and exiting students. This gives additional preparation and training for in-school students, and ensures exiting students either (a) a job, (b) a post-secondary vocational or technical program, or (c) a baccalaureate program. In close coordination with local school programs and agencies, job opportunities are ascertained and interviews are arranged between possible employers and applicants.

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Out-of-School Youth Component

Through the guidance services in the high schools, and with the assistance of the local employment commission, out-of-school youth under the age of 21 are provided the opportunity to enter job preparatory training courses during the evening hours in existing facilities. All of the materials and services of the career guidance and placement center in the high schools are available.

Parallel to, but separate and apart, is a work study program for school dropouts operated on a twelve month basis. This separately funded program provides coordinated on-the-job training with related studies being held in the evening hours under the direction of a vocationally qualified and certified instructor-coordinator.

Staff Development

The District's Professional Renewal Options Plan (see Appendix A) provides flexibility to the staff in meeting individual and faculty needs. Staff development includes orientation to the concept of career education, methods and procedures for integrating career education into the curriculum and training in group process techniques. Opportunities are provided to increase counselors' and teachers' level of knowledge with respect to career characteristics, career requirements, the decision-making process, economic dimensions of work, and the use of available resource materials.

CHAPTER III

RESULTS AND ACCOMPLISHMENTS

Elementary Component (K-6)

The elementary component consists of two facets which contribute mutually to the accomplishment of objectives upon which the program is based. These are:

- Weekly classroom sessions, through the social studies curriculum, at which time a variety of approaches are used to stress aspects of career awareness. The sessions are planned at grades 1, 3, and 5 in 28 project schools, or approximately 265 classrooms.

- "It's Great To Be," a game approach occurring once monthly in grades 5 and 6, utilizing persons from the community who are representative of the career clusters. A total of approximately 50 guests appeared each month, or 2 guests for each of the 28 project schools. This activity occurred in approximately 196 classrooms.

Although these two features comprise the basic elements of the program, their success is contingent on continuous personal contact by the consultant with principals, teachers, counselors, and students. The level of knowledge of all participants has been increased with respect to:

- self-understanding
- understanding others
- awareness of personal characteristics necessary for a wide range of occupations
- recognition of the immensity of occupational opportunities
- identification of occupational grouping by career clusters
- relationship between education and work
- cognizance of a variety of materials and resources relative to career study

MATERIALS: The elementary consultant has conducted a continuous review of the literature concerning career education, with particular study of established programs nation-wide, preview of films, books, and commercial materials. The core of materials selected for use in the 14 original schools was provided also for the 14 new schools (see Appendix B).

A Framework for Developing Career Education, K-6 booklet was furnished to all teachers to provide direction in utilization of selected materials. The booklet included six units, each stressing in a developmental sequence, some phase of career awareness.

Career Clusters were selected for monthly emphasis during the year; teachers and counselors received lists of occupations pertinent to each cluster, a replication of the cluster symbol, and a general information sheet introducing the cluster.

Because of the many teacher suggestions received and ideas observed during the year, it seemed essential to rewrite the original Framework booklet with the assistance of selected teachers and counselors. As a result of the summer writing program, new guides have been prepared which interpret the basic materials available in each school and present new ideas to appeal to a greater variety of learning and teaching styles.

Three individual guides are appropriate for pupils in grades 1, 3, and 5 and are titled, according to the module concept employed in the district:

A Framework for Developing Career Education, Primary Module, Section I

A Framework for Developing Career Education, Intermediate Module, Section I

A Framework for Developing Career Education, Advanced Module, Section I

In order that students at other levels might have special career education opportunities also, other guides were produced. For Primary Module, Section II (second grade) A Guide for Career Awareness Bulletin Boards was developed with ideas presented for general and seasonal displays. In Intermediate Module, Section II (fourth grade) the guide entitled There's So Much To Be, consists of a detailed adaptation of each of the 15 clusters with suggestions for a variety of activities including field trips, resource speakers, films, and group classroom involvement.

The five persons, who worked with the consultant in the writing program, represented five different schools and brought with them a multitude of skills and expertise derived from experience in the classroom and in counseling roles.

Throughout the year, the consultant distributed other materials to teachers as she participated in their planning sessions. Handouts typically included new ideas for group interaction skills, poems and rhymes dealing with self, others, and the community, and film lists with order numbers for Bread and Butterflies, The Kingdom of Could Be You, and The Most Important Person series.

PROBLEMS ENCOUNTERED: The most outstanding problem, which was increasingly apparent throughout the year, was the overwhelming situation created by the presence of one consultant for 28 schools. Although contact was maintained at all schools several times during the year, the consultant felt that many times efforts were cursay; this imbalance caused a lack of continuity which detracted considerably from the impact of the program.

Inherent in our large district is also the problem of adequate teaching time to accommodate the vast number of special programs in existence. However steady the growth of career education activities, the time factor remained a constant deterrent.

Key to the success of a career awareness program is the counselor. While adequate training was received by all 14 elementary counselors, their multiple school assignments and extensive involvement in Plan A implementation, limited their degree of participation in the program.

SUCCESSES: Using the stated objectives, career education activities were considered to be effective in terms of:

- dissemination of information to principals, teachers, counselors, and guidance associates
- community involvement
- impact of career awareness on students
- assistance to graduate students
- professional growth for elementary consultant and counselors
- inservice opportunities for teachers and counselors

Discussion of each focus area follows with delineation of methods employed to accomplish these objectives.

- Dissemination of information to principals, teachers and counselors

  - The elementary consultant began orientation sessions for the 14 new schools during the week prior to the opening of school. Meetings with whole faculties and in small groups, the consultant explained the scope of the program and methods of implementation. A schedule for demonstrations was shared with principals during individual conferences. The slidetape, "It's Great To Be," was presented at five faculty meetings.

  - Grade level meetings in the 14 original schools were begun early and continued throughout the year. Demonstrations were also continued for teachers new to the school or grade level.

  - Classroom demonstrations were presented in all new schools and in some original schools. At these times the consultant, following Framework plans, worked with pupils on career awareness concepts while providing teachers with procedures for implementing the program. Often, all teachers at a grade level came together to watch the demonstration in one classroom. Additional sessions were held when needed. A total of 139 demonstrations were given to approximately 4,865 children in 28 schools. These sessions served a dual purpose: acquainting teachers with materials and techniques, and evaluation of effectiveness of materials by observing pupil responses.

  - One hundred twenty-one grade level meetings, with approximately 1,331 teachers were held. At these times, the consultant was given occasion to talk about progress and problems as well as to know individual teachers better.

- The consultant's services were available to 14 elementary counselors and two guidance associates throughout the year. A presentation was made at the counselors' pre-service in August, 1974. The guidance associates were key persons in Career Education activities, and one learned to do demonstrations on a regular basis in her three schools. These staff members participated in the fall inservice. Both the director and coordinator of guidance have cooperated fully in recognition of the counseling component of the project.

- Community Involvement

  - "It's Great To Be," the career game, was used in grades 5 and 6 as a vehicle for introducing students to a wide variety of occupations. Community guests, numbering 450, appeared in 28 schools representing nine career clusters.

  - Counselors and/or teachers submitted monthly evaluations of each guest with a yearly summation sheet which included:

    Career of guest
    Name of guest
    Level (professional, technical, or semi-skilled)
    Sex
    Ethnic/Racial Designation

  - Explanation of the elementary program was made to the project's Community Advisory Committee at the second quarterly meeting.

  - A half-day workshop was given to the Aransas School District in cooperation with the region service center.

  - A presentation was made to the local St. James Episcopal School by the consultant and the coordinator.

- A PTA program entitled, "It's Great To Be," was presented at Garcia Elementary School.

IMPACT OF CAREER AWARENESS ON ELEMENTARY STUDENTS:

- Throughout the year, the consultant observed activities in all 28 project schools. In May, 1975, counselors rated pupil attitudes at grades 5 and 6 in a highly positive manner, indicating that 52% of Grade 5 and 59% of Grade 6 received the program very enthusiastically. Staff attitude toward the program was very favorable. (See Table 1).

- In May, 1975, 90% of the principals in project schools indicated the positive value of career awareness concepts. (See Table 2).

- On one occasion, teacher-class demonstrations were scheduled for USOE-TEA representatives. These individuals reported a good response by students as they visited in schools. Pupil participation on video-tapes, made by the consultant and viewed by these individuals, was deemed expectionally good.

- Eight weekly sessions were held with 34 fifth-grade students in a project school for the purpose of evaluating career materials and actual student participation in a sustained group situation. The teacher and students were eager and responsive and provided a needed gauge on effectiveness of materials.

- Assistance to Graduate Students
  - The consultant was invited to discuss career education for two university graduate classes.

TABLE 1

Summary of Responses by Elementary Counselors to Career Education Questionnaire

1974 - 1975 (N=14)

SOURCE	PERCENTAGE RESPONSE			
	Strongly Agree	Agree	Disagree	Strongly Disagree
The concepts of Career Education (CE) provide a workable method of helping students understand themselves.	63%	37%		
The SRA kits and other materials seem appropriate for use in a CE program.	54%	46%		
Teachers at the following levels found the CE materials helpful:				
Grade 1	46%	50%	4%	
Grade 3	35%	55%	7%	3%
Grade 5	36%	53%	7%	4%
More grade-level inservice training in CE is needed.	64%	33%	3%	
The parent advisory committee might be a helpful agent in communicating CE concepts.	29%	50%	14%	7%
The career awareness concepts and objectives can be achieved.	45%	55%		
"It's Great To Be" was well-received by teachers at:				
Grade 5	38%	55%	7%	
Grade 6	37%	59%	4%	
"It's Great To Be" was well-received by students at:				
Grade 5	52%	48%		
Grade 6	59%	41%		

TABLE 1 (Continued)

Summary of Responses by Elementary Counselors to Career Education Questionnaire

1974 - 1975 (N=14)

SOURCE	PERCENTAGE RESPONSE			
	Strongly Agree	Agree	Disagree	Strongly Disagree
Guest participation in "It's Great To Be" was satisfactory.	5%	90%	5%	
The attitude toward CE by the school staff was favorable.	1%	73%	26%	
An elementary CE newsletter would be helpful in improving the program.	58%	34%	8%	

33/34/35

- A number of graduate students requested materials and interviews in order to facilitate knowledge of career education for course requirements. A quantity of books and pamphlets were loaned for this purpose.

PROFESSIONAL GROWTH FOR ELEMENTARY CONSULTANT:

- The consultant attended meetings to enhance knowledge of career development:
  - Texas Personnel and Guidance Convention, Dallas, October 16, 1974
  - Governor's Conference on Human Relations, Austin, November 9, 1974
  - Education Service Center Workshop, December, 1974
  - Texas Association for Career Guidance, College Station, February, 1975
- The consultant made two identical presentations at the Texas Elementary Counselors Conference in Austin, May, 1975, entitled "It's Great To Be, Career Education, K-6, Corpus Christi Independent School District."

INSERVICE FOR TEACHERS, COUNSELORS AND GUIDANCE ASSOCIATES:

- Two inservice workshops were offered on November 22, 1974 for (1) teachers in original project schools and (2) teachers in new project schools. The workshops were entitled, "Career Development Through Group Interaction," and featured Dr. Gary Landreth of NTSU. Demonstrations with children, using career education materials, were included as a popular part of the workshop. Teacher evaluations appear in Tables 3 and 4 . This input is of value in planning for the ensuing year.

- The consultant assisted in two district-wide career tours held in 1975 at which time teachers visited many local businesses and industries.

TABLE 3

Summary of Responses by Elementary Teachers and Counselors to Seminar: "Career Development Through Group Interaction"

November 22, 1974 (N=51)*

SOURCE	PERCENTAGE RESPONSE				
	Strongly Agree	Agree	Disagree	Strongly Disagree	No Opinion
The objectives of the seminar were clearly established.	74%	26%			
The seminar activities were appropriate for the proposed objectives.	66%	34%			
The seminar was well-organized with respect to management of time and materials covered.	82%	18%			
If so designed, the seminar was successful in providing specific teaching skills and techniques.	62%	38%			
The seminar was valuable in terms of introducing new concepts for enhancing job performance.	64%	34%		2%	
Participation in the seminar increased your knowledge of the subject and the competencies covered.	58%	42%			
The leader was knowledgeable with respect to the material presented.	96%	4%			
The seminar stimulated enthusiasm to try different ideas and approaches.	74%	26%			

TABLE 3 (Continued)

Summary of Responses by Elementary Teachers and Counselors to Seminar: "Career Development Through Group Interaction"

November 22, 1974 (N=51)*

SOURCE	PERCENTAGE RESPONSE				
	Strongly Agree	Agree	Disagree	Strongly Disagree	No Opinion
The seminar was of sufficient value to justify its being offered again.	80%	18%			2%
The number of hours allocated for the seminar was appropriate.	64%	30%	4%	2%	
The size of the seminar was appropriate for the activities planned.	70%	28%	2%		

*Participants were from elementary schools that began project implementation during the 1973-1974 school year.

Seminar Leader: Dr. Gary Landreth
North Texas State University

TABLE 4

Summary of Responses by Elementary Teachers and Counselors to Seminar: "Career Development Through Group Interaction"

November 22, 1974 (N-44)*

SOURCE	PERCENTAGE RESPONSE				
	Strongly Agree	Agree	Disagree	Strongly Disagree	No Opinion
The objectives of the seminar were clearly established.	63%	37%			
The seminar activities were appropriate for the proposed objectives.	61%	39%			
The seminar was well-organized with respect to management of time and materials covered.	79%	21%			
If so designed, the seminar was successful in providing specific teaching skills and techniques.	55%	45%			
The seminar was valuable in terms of introducing new concepts for enhancing job performance.	63%	32%	5%		
Participation in the seminar increased your knowledge of the subject and the competencies covered.	47%	47%	3%	3%	
The leader was knowledgeable with respect to the material presented.	79%	21%			
The seminar stimulated enthusiasm to try different ideas and approaches.	68%	29%	3%		

TABLE 4 (Continued)

Summary of Responses by Elementary Teachers and Counselors to Seminar: "Career Development Through Group Interaction"

November 22, 1974 (N=44)*

SOURCE	PERCENTAGE RESPONSE				
	Strongly Agree	Agree	Disagree	Strongly Disagree	No Opinion
The seminar was of sufficient overall value to justify its being offered again.	68%	29%			3%
The number of hours allocated for the seminar was approppriate.	66%	34%			
The size of the seminar was appropriate for the activities planned.	63%	37%			

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*Participants were from elementary schools that began project implementatio during the 1974-1975 school year.

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TABLE 5 (Continued)

Summary of Responses by Secondary Principals to Career Development Survey

1974 - 1975 (N=15)

SOURCE	PERCENTAGE RESPONSE				
	Not At All	To A Slight Degree	To Some Degree	To A Great Degree	To A Very Great Degree
Supports classroom teachers and counselors in the planning and implementation of a career oriented curriculum.					
• scheduled counselor time to devote to career development		6%	7%	87%	
• required the use of the local curriculum guides in correlating career development concepts	6%	7%	67%	20%	
• interpreted and insured proper use of data from needs assessment		6%	87%	7%	
• requested subject matter consultant services as needed			47%	53%	
• required regular departmental meetings with career specialist present	13%	33%	40%	14%	
• interpreted the career development program for the department chairperson, the total staff, and the community		14%	57%	29%	
• required staff to include plan for career development in total guidance plan for school		7%	53%	40%	
Aids the outside evaluator in gathering data for progress reports.					
• scheduled faculty time to explain evaluation procedures	7%	13%	20%	60%	
• completed by deadlines, reports required by third-party evaluator			13%	74%	13%
• discussed conclusions and recommendations of 1973-74 evaluation with faculty (presented at principals' August 74 workshop).	6%		47%	40%	7%

- Choosing A Career. Contained in this resource book are comments and resumes of local business labor-industry personnel. The book is a cooperative effort of the local career education project and local Rotary Clubs.

- Curriculum Guide for English 10-12. This content outline is organized around six choice-option courses that have infused career education concepts. The guide provides instructional objectives and resources. Courses include: "Man and His Career," "Decisions," and "Man in in the World of Business."

- Curriculum Guide for American History 9-11. A content outline organized around two courses, "Dilemmas and Decisions" and "Our Recent Past," presents a wide variety of career education resources from which each teacher may select those appropriate for the particular course.

- Curriculum Guide for Physical Science. The outlined guide, which includes career oriented resources and activites, is to be used with physical science texts.

- Curriculum Guide for Fundamentals of Mathematics 9-12. This guide is written with future job and occupational skills for the student in mind .

- Once Upon A Career. This sound-slide presentation gives an over-all view of career education implementation in the Corpus Christi Independent School District.

- Everybody Needs A Rainbow. This sound-slide presentation with special graphics was developed by a high school counselor for use in educational/career guidance orientation.

MAJOR ACTIVITIES AND ACCOMPLISHMENTS. The three secondary career specialists provided services to administrators, teachers, counselors and students. Table 6 gives a summary of activities by quarters for the specialists. Particularly noteworthy is the number of teachers and students using the high school career centers. A career center materials survey indicates that students want more career information and time to use materials. There is a continuing

TABLE 6

Summary of Activities for Secondary Career Specialists 1974 - 1975*

SOURCE	FREQUENCY			
	Sept.-Nov.	Dec.-Feb.	Mar.-May	TOTAL
Plan or confer with principal	50	53	86	189
Plan with department	15	12	8	35
Plan with department chairperson	20	19	31	70
Plan with teachers	97	127	104	328
Confer with teachers	138	397	423	958
Observe Class	17	21	17	55
Demonstrate lesson	45	36	31	112
Provide curriculum material(s)	268	195	209	672
Plan and direct staff development	1	5	11	17
Plan with counselor(s)	36	42	56	134
Confer with counselor	79	158	186	423
Arrange for speaker(s)	79	86	88	253
Independent student assessment	44	17	98	159
Use of Career Centers by students	4,770	3.157	3,850	11,777

*Specialists: Miss Judy Bly, Miss Bernice Bouldin, Mrs. Elda Perez

Number of schools served: 5 high schools, 10 junior high schools

Number of teachers and students: 988 teachers; 18,119 students need to find ways to help students utilize the services available to them. Teachers' responses to materials and services are very favorable.

Planning sessions with counselors and teachers have provided better use of materials and a more sequential program (see Appendix D for example of a plan for relating career awareness and educational guidance in the ninth grade).

Students' feedback to the junior English course, using decision-making strategies, suggested a number of interesting career awareness changes. Comments on the teaching strategies used indicated that this was a new experience for many of the students that was liked and appreciated.

An individual career assessment program was made available to students through the high school career centers (see Appendix E). The program is an effort to provide the counselor with additional guidance information in working with counselors. This assessment service is in addition to other instruments being used with classrooms, i.e., the Kuder or California Occupational Preference Scale. Approximately 159 students were administered one or more instruments as part of the individual assessment service.

The project staff was involved in the annual College Night held in February. One career specialist was responsible for the publicity, i.e., contacting all local high schools and junior high schools, area high schools, and local radio and television stations. Approximately 60 colleges and universities were represented and approximately 1,300 students were in attendance.

Career Education field trips were provided for secondary students this year from project funds. The primary purpose of the field trips was to see people in the actual performance of their duties. Approximately 700 secondary students participated.

DISSEMINATION ACTIVITIES. Reporting the progress and activities of the project to various groups was done through news articles, TV programs, guest speaking, workshops and special events. Members of the career education staff attended meetings of the Division of Instruction, Curriculum Cabinet, various departments and those held at individual schools.

A 30 minute television program was presented twice in September. The program focused on the role of the secondary career specialist and the function of the Career Guidance and Placement Centers.

A half-time show at a high school football game featured four bands in a "Salute to Career Education." While the bands were performing a local television announcer read a script explaining the goals for career education in the Corpus Christi Schools.

Career Education materials were provided for two multi-media presentations by the District's Mathematics consultant on how to plan for integrating career education into the secondary mathematics curriculum. One hundred packets were prepared by the project staff for the meetings -- November 15, TSTA District I in Edinburg, Texas and November 21-23, Annual Conference for the Advancement of Mathematics Teaching.

A variety of articles dealing with the project, career information, and community involvement have appeared in local and school newspapers/newsletters. These included 18 local newspaper articles and 50 informational notes in school newspapers/newsletters.

An article, "Finding A Future That Fits," appeared in the June, 1975 issue of The Rotarian, an international magazine. The article tells how the local Career Education project and Rotary Clubs combined to develop a Community Resource Speakers Book.

A report to the Board of Education was given by the project director on April 14, 1975. After opening comments, a slide presentation was shown. Board members asked for clarification on several aspects of the program. Dr. Dana Williams, Superintendent of Schools, added several positive comments about the project.

The U.S. Office of Education position paper on Career Education was circulated to the Assistant Superintendent for Instruction and all Directors in the Division of Instruction. Comments concerning selected sections of the position paper were made at a workshop for principals in June, 1975.

COMMUNITY INVOLVEMENT. Meetings with the Community Advisory Committee were held each quarter. The agenda for each meeting focused on one component of the career education program. Members of the Committee were very helpful in increasing community involvement in career development. A form entitled "Career Development Through Community Experiences," (see Appendix F) was developed and used with community groups. Visitation sites for community field trips for the teachers and counselors were increased through the use of the form.

The Community Resource Book, an on-going effort between the local project and local Rotarians has grown to 350 participants. The questionnaire used in the book includes the personal side of the career.

Principal, counselors, teachers, students and speakers were very satisfied with the results of a junior high school career day. The counselor-planned activity also involved school parents. A total of 45 speakers were invited to participate in the 61 chosen career areas.

PLACEMENT. The placement component of the high school career centers continues to be very important in providing employment experiences to individual students. Table 7 presents a summary of the placement component in the five high schools. All the sources listed show a marked increase over the same sources for the first year of the project.

STAFF DEVELOPMENT FOR TEACHERS AND COUNSELORS (7-12). Various staff development activities were planned and coordinated by the project staff using the District's Professional Renewal Option Plan (see Appendix A).

A program initiated by the faculties of two high schools was led by a career specialist. Major focus of the inservice attended by English, mathematics and homemaking teachers was on identifying available career materials and resources, to correlate materials with the existing curriculum and to plan units to be used with students.

A workshop was held in June, 1974 for secondary counselors in which the use of assessment instruments to assist students in the deciding process was discussed. Dr. Charles M. Clark who was the workshop leader, emphasized both the rationale and practical application of instruments. Counselors were given the opportunity to take the SVIB prior to the workshop. The evaluation summary of the workshop is presented in Table 8.

On November 21, 1974, an inservice program was held for junior high school principals and counselors. Dr. Gary Landreth, North Texas State University, led the workshop which focused on career awareness through group guidance. Two eighth grade English classes were used for group demonstrations. Table 9 summarizes the evaluation of the seminar.

On November 22, 1974, two inservice sessions were offered during the District's staff development program. "Economic Dimensions of

TABLE 7

Summary Report of Placement Component at Five High School Career Guidance Centers

SOURCE		FREQUENCY
Employers Contacted		421
Applications on File		1,260
Sent for Interviews		716
Job Orders		134
Placement		
	Part-time or permanent	267
	Jobs referred to work-study coordinators	24
	TOTAL	291

TABLE 8

Summary of Responses by Secondary Counselors
to Career Guidance Workshop
June 6, 1974 (N=36)

SOURCE	RATING*		
	Senior H.S.	Junior H.S.	TOTAL
Informative	3.9	4.4	4.1
Helpful	3.6	4.1	3.8
Interesting	3.9	4.4	4.1
Practical	3.6	4.0	3.8

*Rating (1 = not at all to 5 = a great deal)

Workshop Leader: Dr. Charles M. Clark

TABLE 9

Summary of Responses by Participants to Seminar: "Career Awareness Through Group Guidance" November 21, 1974 (N=33)

SOURCE	PERCENT RESPONSE				
	Strongly Agree	Agree	Disagree	Strongly Disagree	No Opinion
The objectives of the seminar were clearly established.	53%	47%			
The seminar activities were appropriate for the proposed objectives.	73%	27%			
The seminar was well-organized with respect to management of time and materials covered.	61%	35%	4%		
If so designed, the seminar was successful in providing specific teaching skills and techniques.	38%	58%	4%		
The seminar was valuable in terms of introducing new concepts for enhancing job performance.	31%	58%	7%		4%
Participation in the seminar increased your knowledge of the subject and the competencies covered.	19%	73%	4%		4%
The leader was knowledgeable with respect to the material presented.	65%	35%			
The seminar stimulated enthusiasm to try different ideas and approaches.	38%	62%			

TABLE 9 (Continued)

Summary of Responses by Participants to Seminar: "Career Awareness Through Group Guidance" November 21, 1974 (N=33)

SOURCE	PERCENTAGE RESPONSES				
	Strongly Agree	Agree	Disagree	Strongly Disagree	No Opinion
The seminar was of sufficient overall value to justify its being offered again.	46%	42%	4%	4%	4
The number of hours allocated for the seminar was appropriate.	31%	42%	16%	4%	4
The size of the seminar was appropriate for the activities planned.	27%	65%	8%		

N = 22 Junior High Counselors
1 Guidance Associate
4 Junior High Principals
3 Career Specialists
1 High School Vocational Counselor
2 Coordinators

Seminar Leader: Dr. Gary Landreth
North Texas State University

the World of Work" was presented by Dr. William Luker, North Texas State University. Participants explored methods of helping secondary students examine their own career aspirations. Table 10 presents a summary of responses by participants to the seminar.

A second seminar entitled "Decision-Making Program for Secondary Students" was led by Mrs. Elsie Whorton, College Entrance Examination Board, and Dr. Sue Weaver, Lamar Consolidated School District. Participants discussed materials which stress decision-skills such as risk-taking, objective settings, and the application of strategy. Table 11 presents a summary of participants' feedback to the seminar.

The Districts' Equivalency Time Program for inservice, i.e., a method by which faculty members may schedule programs that meet personal educational needs, was utilized by teachers and counselors on February 17-18, 1975. The program focused on developing social interaction skills such as group decision-making, leadership skills and peer relationships.

On March 3 and April 25 inservice programs were held for teachers and counselors. The participants visited local business-industry locations, learning about the world of work outside the classroom. Tables 12 and 13 present a summary of responses by participants to the community field trip experience.

PROFESSIONAL GROWTH ACTIVITIES FOR SECONDARY PROJECT STAFF. The project staff attended a half-day workshop on November 14, 1974, held by the Educational Service Center, Region II. The meeting focused on innovative career education programs that have been successfully field tested in other states.

The Governor's Conference on Human Resources was attended by the project staff on November 19, 1974, at Austin, Texas. Dr. Kenneth B. Hoyt was the keynote speaker at the conference. Groups composed of public school and college educators as well as business and industry personnel developed several recommendations from interaction sessions to be presented in a report to the Governor.

The project coordinator and two career specialists attended the National Coordinating Conference for Administrators of Part D Projects, on January 27-30, 1975, in Dallas, Texas. Local materials were displayed for the purpose of sharing ideas with other project personnel.

TABLE 10

Summary of Responses by Secondary Teachers and Counselors to Seminar: "Economic Dimensions of the World of Work" November 22, 1974 (N=88)

SOURCE	PERCENT RESPONSE				
	Strongly Agree	Agree	Disagree	Strongly Disagree	No Opinion
The objectives of the seminar were clearly established.	86%	14%			
The seminar activities were appropriate for the proposed objectives.	81%	19%			
The seminar was well-organized with respect to management of time and materials covered.	91%	9%			
If so designed, the seminar was successful in providing specific teaching skills and techniques.	43%	19%	5%		33%
The seminar was valuable in terms of introducing new concepts for enhancing job performance.	47%	38%			15%
Participation in the seminar increased your knowledge of the subject and the competencies covered.	67%	33%			
The leader was knowledgeable with respect to the material presented.	100%				
The seminar stimulated enthusiasm to try different ideas and approaches.	33%	47%	5%		15%

TABLE 10 (Continued)

Summary of Responses by Secondary Teachers and Counselors
to Seminar: "Economic Dimensions of the World of Work"
November 22, 1974 (N=88)

	Strongly Agree	Agree	Disagree	Strongly Disagree	No Opinion
The seminar was of sufficient overall value to justify its being offered again.	71%	29%			
The number of hours allocated for the seminar was appropriate.	32%	17%	15%	15%	9%
The size of the seminar was appropriate for the activities planned.	67%	33%			

Seminar Leader: Dr. William Luker
North Texas State University

TABLE 11

Summary of Responses by Secondary Teachers and Counselors
to Seminar: "Decision-Making Program for Secondary Students"
November 22, 1974 (N=81)

SOURCE	PERCENTAGE RESPONSE		
	Yes	No	I'm N Sure
Do you think it is valuable to teach decision-making skills in our schools?	90%	1%	9%
In today's program, did you learn what some of the decision-making skills are?	91%	6%	3%
Did your participation in the exercise demonstrate to you how some of these skills can be taught?	85%	6%	9%
After today's exercises, can you think of ways that you could implement decision-making into your school curriculum and/or counselor program?	64%	7%	29%
After today's experience, will you take a specific action to implement decision-making into your school's curriculum and/or counselor program?	44%	15%	41%

Seminar Leaders: Mrs. Elsie Whorton (CEEB)
Dr. Sue Weaver

TABLE 13 (Continued)

Summary of Responses by Inservice Participants
to Community Field Trip Experience

April 25, 1975 (N=225)

SOURCE	PERCENTAGE RESPONSES				
	Strongly Agree	Agree	Disagree	Strongly Disagree	No Opinion
The seminar was of sufficient overall value to justify its being offered again.	48%	39%	7%	1%	5%
The number of hours allocated for the seminar was appropriate.	35%	50%	11%	2%	2%
The size of the seminar was appropriate for the activities planned.	45%	47%	6%	—	2%

58 /59 / 60

CHAPTER IV

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

On the basis of observations and data collected, the following conclusions were made:

- The response by students, teachers, counselors and administrators to materials and services provided by the project staff are very favorable.
- The use of a variety of delivery systems (e.g., special materials, career-oriented lessons, units within courses, interdisciplinary units, role models, career centers, group counseling, etc.) for achieving career development goals appear to be a valid approach to successful program implementation.
- Data indicates that students like and appreciate the opportunity to experience decision-making strategies.
- A variety of teacher options regarding staff development (e.g., mini-grants, special needs program, campus seminar, workshop, etc.) is important to the implementation of career education concepts.
- The use of role models from business, labor, and industry is an effective means to assist individuals in their search for meaning in life and to prepare them for a life style.
- The career education change agent (whether teacher, counselor, administrator, or a team) has to possess a variety of process and content skills.

Recommendations

The conclusions that were drawn from the second year of the project provided the following recommendations:

- It is recommended that school personnel continue to find ways to help students utilize the services available to them.

- It is recommended that the local community continue to be made aware of the concepts, rationale, and ways in which school and community can cooperate to promote the career development of individuals.

- It is recommended that the District's Leadership Team consider methods for moving career education from the project phase to the program phase during the final year of the grant.

- It is recommended that the counselor's role and function continue to be reviewed in order to operationalize a total guidance-based career education model.

- It is recommended that a campus planning model i.e., establishment of goals, carrying-out needs assessment, development of program structure and evaluation, continue to be utilized for career education program implementation.

- It is further recommended that principals establish a system for evaluation, monitoring, and feedback that meets the needs of their faculty.

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APPENDIX A

COMPONENTS OF PROFESSIONAL RENEWAL OPTIONS PLAN (PRO)

APPENDIX A

COMPONENTS OF PROFESSIONAL RENEWAL OPTIONS PLAN (PRO)

		1974 - 1975								
		September	October	November	December	January	February	March	April	May
Inservice based on identified needs (district, building, department/module, individual)	Pre-planning Conferences							4		
	Needs Assessment Survey									
	Principal/Consultant Staff/Faculty Interaction	x	x	x	x	x	x	x	x	x
Continuous involvement of staff in modifying programs designed to meet needs	Building Representatives Council	24		13	17		20	20	17	15
	Materials/Program Orientation		25							
	District-Wide Awareness Programs			22				3	25	
Flexibility in use of time and personnel	Ongoing Programs	x	x	x	x	x	x	x	x	x
	Equivalenty Time Programs		x	x	x	x	x	x	x	
	Individual Study Arrangements	x	x	x	x	x	x	x	x	x
	Minigrant Proposals	x	x	x	x	x	x	x	x	x

PROFESSIONAL RENEWAL OPTIONS PROGRAM

PROGRAM DEFINITIONS

Materials/Program Orientation. These programs are those related primarily to meeting organizational needs such as activities necessary to the opening of school, to the initiation of new programs, or for use of new materials. Teachers involved in special programs may be required to participate in up to eight hours of inservice related to these programs. Such programs must be submitted through and approved by the office of the appropriate assistant superintendent.

Equivalency Time Program (ETP). Equivalency time program seminars will be conducted outside regular school hours with the seminar time accumulative up to 24 hours. From 1 to 3 days of release time will be allowed on those days identified for workday equivalents. Seminars proposed as Equivalency Time Programs must be approved by the office of Employee Development.

Ongoing Programs. Programs which offer opportunities for improving the teaching-learning process similar to many offered in past workshops will be developed on both an awareness and an indepth basis. Such programs will be reviewed by the Advisory Committee and approved by the office of Employee Development. Such programs may count as an equivalency time program if conducted after school hours.

Individual Study Arrangements. Opportunities will be provided for a teacher or teachers with common interests to research, design, and propose programs in response to individual, school, or district needs. Such programs must be approved by the appropriate personnel (principal, departmental director, etc.) and by the office of Employee Development. Such programs may count as an equivalency time program if conducted after school hours.

Minigrant Proposals. Under a Title III, ESEA proposal, expansion of the independent study arrangements will provide limited funds for materials and release time for research, etc., of the individual project. Such programs will be reviewed by the Advisory Committee and must be approved by the office of Employee Development. Such programs may count as an equivalency time program if conducted after school hours.

Building Department/Module Meetings. Workshops may be designed and initiated by faculties or segments thereof in response to identified needs. Such programs may count as an equivalency time program if conducted after school hours and approved by the appropriate personnel and by the office of Employee Development.

District-Wide Awareness Programs. Seminars based on the results of a needs assessment survey. The purpose of these seminars will be to expose participants to new concepts and strategies for improving the educational process. Such seminars should serve as the basis for development for ETP seminars to be offered at a later date.

APPENDIX B

ELEMENTARY CAREER EDUCATION MATERIALS

APPENDIX B

ELEMENTARY CAREER EDUCATION MATERIALS

Materials distributed by the Career Education program in each project elementary school are listed below.

SRA FOCUS ON SELF-DEVELOPMENT KITS

Two Stage I - Awareness
Two Stage II - Responding
Two extra Teacher's Manuals - Awareness
Two extra Teacher's Manuals - Responding

GUIDANCE ASSOCIATES FILMSTRIPS

One "Who Do You Think You Are?"

MIT PRESS

One "Yellow Pages of Learning Resources"

CONSTRUCTIVE PLAYTHINGS

One set "Workers We Know"

KING FEATURES

Career Awareness featuring Popeye the Sailor

MCGRAW-HILL SERIES

"What Job For Me" (18 booklets)

SCHOLASTIC-KINDLE FILMSTRIPS

One "Who Am I?"
One "How Do I Learn?"

DAVID C. COOK TEACHING PICTURES

One set "Social Development
One set "Career Awareness"
Two sets "My Community"
Two sets "Home and Communit
Helpers"
Two sets "School and School Helpers"
Three sets "Transportation"
Three sets "Moods and Emotions"
Three sets "Learning About Money"
One set "Learning About Human Relationships"

DEVELOPMENTAL LEARNING MATERIALS

One set The Many Faces of Children
One set Large Body Puzzles (white)
One set Large Body Puzzles (black)
One set People Puzzles
One set Multi Ethnic Childr
Puzzles
Two sets Job Puzzles
Animal Puppets

BOOKS

"The Daddy Book" - McGraw-Hi
"What Do People Do All Day?"

APPENDIX C

SENIOR HIGH SCHOOL CAREER EDUCATION MATERIALS

APPENDIX C

SENIOR HIGH SCHOOL CAREER EDUCATION MATERIALS

Location o
Materials

GENERAL REFERENCE MATERIALS FOR STUDENTS

Career Information Handbook, 1973. ALL

Resource book divided into the 15 job clusters. Each cluster is defined by examples and gives sources for additional information.

Comparative Guide to American Colleges, fifth edition, James Cass and Max Birnbaum. ALL

Dictionary of Occupational Titles, Volume I and II. ALL

Volume I contains 35,500 job titles and descriptions of occupations which are listed alphabetically. DOT numbers are assigned to each title.

Volume II contains the same job titles listed in DOT number sequence and a section in which job titles are arranged according to industry. Information relating to the last three digits of the DOT numbers concerning worker traits and requirements for different jobs is also given.

Encyclopedia of Careers and Vocational Guidance, Volume I and II, J.G. Ferguson Co., 1972 revision. ALL

A guide for the career planning of students. Volume I contains 71 articles by leaders of industry; Volume II discusses the specifics of 650 occupations.

Health Careers Guidebook, third edition 1972. ALL

Latest information on opportunities in health fields. What the occupation is and what it does, what aptitudes and skills it requires, what kind of education is needed and how long the training takes and what the opportunities are for advancement.

Health Careers in Texas, 1974. ALL

	Location of Materials
Health Careers Resource Manual. Similar to "Health Careers in Texas" but directed toward the minority student.	ALL
Minnie Stevens Piper Foundation Handbook, 1974-75 edition. Compendium of Texas Colleges and financial aid calendar.	ALL
Occupational Outlook Handbook, 1974-75 edition. More than 700 occupations representing a large percentage of the work force are included. A photograph and information concerning the nature of the work; places of employment; training, other qualifications, and advancement; employment outlook; earnings and working conditions; and sources of additional information are included for each occupation.	ALL
Occupational Outlook Reprint Series. Over 150 individual copies of information from the Occupational Outlook Handbook.	ALL
Patterson's Schools Classified, 1974. A listing of career fields in 7,000 schools and institutions.	ALL
Texas College and Career Guide, Donald Armstrong, 1975. A comprehensive presentation of Texas Higher Education.	ALL
Texas VIEW (Vital Information for Education and Work). Up-to-date occupational information on 466 jobs which do not require a baccalaureate degree as an entry requirement.	ALL

TEACHER REFERENCE MATERIALS

BOOKS

VALUES EDUCATION

	Location of Materials*
Values Clarification: A Handbook of Practical Strategies for Teachers and Students, Sidney Simon, Leland Howe and Howard Kirschenbaum, 1972. Provides the teacher with 79 practical strategies and hundreds of specific suggestions to help students become aware of their own feelings, ideas and beliefs.	ALL
Meeting Yourself Halfway: 31 Value Clarification Strategies for Daily Living, Sidney B. Simon, 1974. Based on Simon's Values Clarification, this book features many of the same exercises in a format for individual development of greater self-awareness and organized self-knowledge.	ALL
Composition for Personal Growth: Values Clarification Through Writing, Robert C. Hawley, Sidney B. Simon, and D.D. Britton, 1973. A practical handbook on the teaching of values through student writing.	K, MO, R
Human Values in the Classroom: Teaching for Personal and Social Growth, Robert C. Hawley, 1973. Teaching and learning based on human needs and values are described in terms of specific techniques and classroom procedures.	K, MO, R
A Handbook of Personal Growth Activities for Classroom Use, Robert C. Hawley and Isabel L. Hawley, 1972. Contains over 90 activities, with exploration and rationale for each, designed to help students learn and expand personal skills and strengths.	K, MO, R
Self-Awareness Through Group Dynamics, Richard Reichert, 1970. In the belief that real learning should affect the life-styles of students, the author describes twelve group experiences for classroom investigation of values, attitudes, and roles.	K, MO, R

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* C-Carroll, K-King, MI-Miller, MO-Moody, R-Ray

Location of Materials

Value Exploration Through Role-Playing, Robert C. Hawley, 1974. — K, MO, R

A description of specific role-play techniques applicable in junior and senior high schools. The author shows how the "open chair" is used, gives 18 formats for role-playing and considers how this technique can be applied in the teaching of subject matter, the development of moral judgment, and decision making.

Deciding for Myself: A Values Clarification Series, Wayne Paulson, 1974. — K, MO, R

A program designed to facilitate the application of the values-clarification approach. There are three sets of participant materials and a Leader Guide. Each set of materials contains ten eight-page units, with 200 strategies.

Decisions and Outcomes, H.B. Gelatt, Barbara Varenhorst, Richard Carey, and Gordon P. Miller, CEEB, 1973. — ALL

A course of study on the decision-making process, stressing the three main elements of decision making — information, strategy, and values — and how to use these elements to gain increased freedom and control in one's life. The materials are designed for use in a group setting and ask the students to make choices in true-to-life situations which are then analyzed. Classroom set of student booklet are available at each high school Career Center.

Decisions and Values Classroom Paperback Library with teacher's guide. — ALL

40 paperback books, especially designed to accompany sound-slide programs: *Clarifying Your Values: Guidelines for Living* and *Hard Choices: Strategies for Decision-Making* (see sound-slide listing for locations).

The Decisions and Values Classroom Paperback Library includes: (5 copies of each in career centers)

Bless the Beasts and Children by Glendon Swarthout
Hey, Dummy by Kin Platt

Location of Materials

My Darling, My Hamburger by Paul Zindel
The Price by Arthur Miller
A Raisin in the Sun by Lorraine Hansberrg
Siddhartha by Hermann Hesse
A Single Light by Maia Wojciechowska
The Water is Wide by Pat Conroy

OTHER PAPERBACK BOOKS

	Location of Materials
Career Education: What It Is and How To Do It, Kenneth Hoyt, 1974.	K, MO, R
Loneliness in the Schools, Marc Robert.	C
Manpower and Economic Education, Robert Darcy and Phillip E. Powell, 1973.	ALL

HANDBOOKS AND GUIDES

	Location of Materials
Career Education Resource Guide, General Learning Press, 1972. Career oriented activities which have been developed and put into practice by one or more school districts in the United States. Each activity has sections on concepts, performance objectives, materials, lesson capsule, and observations.	ALL
Career Education in the Environment, 1972 Designed to be used in the exploration of environmental problems and provides information on existing and emerging career opportunities in this field.	K, MO, R
Texas VIEW (ESC XIX) Guide, transparencies and printed job descriptions are available.	ALL

	Location of Materials
A Digest of Resource Activities for Career Education, James Dasher, Arkansas State Department of Education, 1973. Sampling of activities used to fuse career education into the regular curriculum.	R
Coping With Series Manual, Gilbert Wrenn and Shirley Schwarzrock, 1973. The Coping With Series has been written for young people about their interests, values, and problems with which they are most concerned. They may be used for individual reading, as background for class discussions and for special group counseling and guidance. *Coping With Series* booklets available are: *I'd Rather Do It Myself, If You Don't Mind* *Do I Know the "Me" Others See?* *My Life - What Shall I Do With It?* *You Always Communicate Something*	ALL
Exploring Careers: A Teacher's Handbook, Keith and Kathryn Kearins, 1973. Sixteen classroom activities that teach career awareness and preparation to students. Activities are applicable to many subject areas.	K, MD, R
Career Education Starter Kit: A Student-Centered Teaching Manual, Norman L. Ellenberg, 1973. Presents ways for the teacher to reinforce career guidance through the use of community and school resources.	K
The Art of Developing a Career-Helpers Guide, Theodore W. Friel and Robert R. Carkhuff. Based upon the phases of learning - exploration, understanding and action — the guide develops programs for expanding career alternatives narrowing career alternatives and developing a career program.	K, MD, R

	Location of Materials
The Career Guidance Class, second edition, Jeff Ferguson. This handbook provides a complete, step-by-step guide to exploring career choice in a group setting.	K, MO, R
Poster Ideas for Personalized Learning, Betsy Caprio. This guide gives many strategies for using the Argus posters found in the career centers.	ALL
My Job Application File, Kahn Publishing Co., 1974. Gives examples of various job application forms.	ALL
Exploring Clerical Careers, Robert Ristau, 1974.	K
BULLETINS	
Relating General Educational Development to Career Planning, U.S. Department of Labor, 1971. This publication is intended to facilitate the process of career development by relating the general educational development required for different jobs to reasoning mathematics and language development.	ALL
Occupational Manpower and Training Needs, U.S. Department of Labor, revised 1974. This bulletin presents both general and detailed information on the relationship between occupational manpower requirements and training needs.	ALL
TEACHING UNITS	
Career Guidance Through Groups (company concept), U.S. Department of Labor, 1973. Students assume the role of management. Minimum 10 class sessions. Teacher and counselor team together.	ALL

	Location of Materials
Career Development Curriculum, Minnesota State Department of Education, 1970.	ALL
Seven units designed to facilitate the infusion of career concepts into the curriculum. Summary of materials available for planning career related activities. Units available are: The Social Contribution of Work Life Styles and Work Significant Others You and Your World of Work Satisfaction and Rewards of Work Self-Concept Exploration Women and the World of Work	
Career Education Program, Volume III (HM CO.) Teaching units for grades 10-12.	K
Inquiry-Oriented Mini Units, Changing Times Education Service.	K
Each Mini unit contains 40 copies of an article from Changing Times, chosen for its particular interest and value to today's students. Transparency and spiritmaster supplement the reading and shed further light on key concepts. Units available: Jobs: An Updated Look Into the Future Now, At Last, Better Jobs for Women	
Career Related Math Units, Robbinsdale Area Schools Minneapolis, Minnesota.	K, MO, R
Career Development Program, Marietta, Georgia	K, MO, R
Units available are: Geometric Designs in Action Government: The Labor Union The Newspaper Algebra: Who Needs It? Geometry: How It Is Used in Construction	

	Location of Materials
Botany - Grafting Careers Utilizing Spanish Geometry: Preparation for a Career Careers in Dramatics Typing II: A Job Skill	
Science Unit (Career related), Minnesota State Department of Education.	K, R
Geometry (Career related), Minnesota State Department of Education.	K, R

PERIODICALS

Career World A magazine featuring specific careers. Each career center receives a classroom set, with teacher's guide, each month.	ALL
Occupational Outlook Quarterly	ALL
Current Health	ALL

FILMSTRIPS

Westinghouse Learning Press Sound/Color Filmstrips Series Sound filmstrip on each of the 15 career clusters.	K, MO, R
The Changing Work Ethic (Guidance Associates).	K, R
Preparing for Jobs of the 70's (Guidance Associates).	MI
Career Direction: High School as Tryout (Guidance Associates).	K
Technology: Master or Slave? (Argus Communication).	C

	Location of Materials
Perception: Do You See What I See? (Argus Communication).	C
Roles and Goals: Which Comes First, the Role or the Goal? (Argus Communication).	C
Why Am I Afraid To Tell You Who I Am? (Argus Communication).	C
Exploring Careers - Environmental Control and Marine Science (SVE).	MI
Women Today (Guidance Associates).	K
Careers and Lifestyles (Guidance Associates). Examines 8 different lifestyles.	K
Career Values: What Really Matters To You? (Guidance Associates).	K, MI, MO
Public Service Workers (Eye Gate).	MO, R
Understanding Values (Eye Gate).	MO, R
Basic Office Practices and Procedures (Eye Gate).	MO, R
Living With Computers (Eye Gate).	MO, R
Careers in Aerospace (Eye Gate).	R
Preparing for the World of Work (Guidance Associates).	C
Job Attitudes: Why Work at All (Guidance Associates).	C
Job Attitudes: Trouble at Work (Guidance Associates).	MO
Job Attitudes: A Job That Goes Someplace (Guidance Associates).	MO
Choosing Your Career (Guidance Associates).	C
Fantastic World of Work (Foremost). 16 sound filmstrips that are data-people-thing related to help the student better understand his/her lifestyle requirements and to demonstrate how each occupation does or does not relate to that lifestyle.	K

	Location of Materials
Family Living Program (Scholastic). Unit I: The Individual Who Am I? Growing Through Changes Your Choice	MI
How To Get That Job (Bowman). Six sound filmstrips and teacher's guide: The Right Job For You What The Employer Wants The Media - And How To Use Them The Job Interview - Part 1 The Job Interview - Part 2	C-Library

KITS

Life Career Game (Western Publishing Company). Eight years of a person's life cycle is patterned by group of students in competition. Decisions are made about occupations, education, family life and leisure time.	K, MI, MO
Discovery (Scholastic). Eight sound filmstrips and student logs are used to give students a chance to think about themselves and about careers.	K, MI
Career Games (Educational Progress). Program emphasizing involvement, decision making, and building self-image.	C, K, MO
Career Survival Skills (Charles E. Merrill). Designed to lead students to develop a keener sense of awareness of career development so that they may be better equipped to make their own plans at the appropriate time in the future. Components include career education index, cassette, handbook, wall chart, teacher's manual, three professional books.	K

Location of
Materials

16MM FILMS

Library of Career Counseling Films

ROTATED

13 films with teachers' guide (14 to 16 minute)

Is a Career as a Technician for you?
Is a Career in the Health Services for you?
Is a Career in Machining for you?
Is a Sales Career for you?
Is a Career in the Service Industry for you?
Is a Career in Government for you?
Is a Career in Radio or Television for you?
Is a Career in the Hotel or Motel Business for you?
Is a Career in Finance, Insurance or Real Estate for you?
Is a Career in Electronics Manufacturing for you?
Is a Career in Clerical Work for you?
Is a Career in the Professions for you?
Is a Career in Management for you?

AUDIO RECORDINGS

Career Development Lab

K, R

60 taped interviews (60% cover professional careers; the remainder include non-professional and technical occupations).

Careertapes (MacMillan).

MI

Eighteen cassettes of people talking in depth about their occupations.

SLIDES

Slide Sets (SVE).

MD, R

Faces and Feelings
Sharing
Together
Each set has 20 slides (no sound) with teacher's guide

	Location of Materials
Clarifying Your Values: Guidelines for Living (Society and Mankind sound/slide.)	K
Coping With Life: Frustration and Disappointment (Society and Mankind sound/slide).	MI
Hard Choices: Strategies for Decision-Making (Society and Mankind sound/slides).	R
Conflict in American Values: Life Style vs Standard of Living (Society and Mankind sound/slide).	MO
Human Values in a Age of Technology (Society and Mankind sound/slide).	MO
Jobs for the 70's (U.S. Department of Labor) 40 slides based on information from the Occupational Outlook Handbook.	ALL

GRAPHIC MATERIALS

Career Skills Matrix (Westinghouse). Fifteen charts on each of the career clusters.	C,K, R
Posters (Weston Walch).	
Careers for Good Writers	MO
Geometry Occupations	C
Mathematics Occupations	C
Careers in Athletics	MI
Health Careers	MI
Posters Without Words (Argus Communication).	C,K

TRANSPARENCIES

Texas VIEW (ESC XIX).	K. MO,

	Location of Materials
Knowledge Needed to Obtain Work (KNOW) SRA.	K
Job-O "Job Finders". For use with Job-O materials.	ALL

OTHER MATERIALS

Education/Career Wheels (APGA). Business, Engineering, Humanities, Natural Science, and Social Science.	ALL
Resource Speakers Book (Local). A list of community people who have volunteered to assist with career development.	ALL
California Occupational Preference Survey (COPS). Student booklets and interpretive profiles available (approximately 40 minutes to administer).	ALL
Work Values Inventory (HM Company). A means of accessing the goals which motivate man to work (approximately 15 minutes to administer).	ALL
Career Guidance Instruments (for individual referral). General Aptitude Test Battery (GATB) Strong Vocational Interest Blank (SVIB) Minnesota Vocational Interest Inventory (MVII) Survey of Study Habits and Attitudes (SSHA)	ALL
Value Sheets (Argus Communication). A series of individual lesson plans dealing with "Making Sense of Our Lives." Spirit master, poster and suggestion sheets are included.	C, K, MI

	Location of Materials
Media Pak - Intepersonal Communication (Argus Communication). Easy-to-use cassette program helps to develop listening and communication skills.	C
Media Pak - Feelin' (Argus Communication). Feelin' brings life situations into focus by making connections between what we feel and what we think about someone or something.	C, MO
A New Approach to Role-Playing (Can of Squirms). Game can be used as a teaching aid to encourage lively discussion.	R

SUPPLEMENTARY READING

The Turner Career Guidance Series (Revised) Rd. Lv. 5-6. 1. Wanting a Job 2. Training for a Job 3. Starting a Job 4. Looking for a Job 5. Holding a Job 6. Changing a Job Each title includes a teacher's guide. Classroom sets available at King (1,2,3, 4) and Moody (1).	ALL
Follett Vocational Reading Series, Rd. Lv. 4-6. Anita Powers, Office Worker Helen Greene, Department Store Worker Marie Perrone, Practical Nurse John Leveron, Auto Mechanic The Millers and Willie B., Butcher, Baker, Chef The Delso Sisters, Beauticians	C, K, MI, M
How to Find and Apply for a Job, Kushner and Keily.	K, MI, MO,
The Job You Want - How to Get it, Blackledge.	K, MI, MO,
Career Choices for the 70's, Arnold Arnold.	C, MI, MO,
Careers for the 70's: Conservation, Ed Dodd.	C, MI, MO,

	Location of Materials
Career for the 70's: Journalism, Arthur Myers.	C, MI, MD, R
Careers for the 70's: Dance, Walter Terry.	C, MI, MD, R
Careers for the 70's: Securities, Faye Henle.	C, MI, MD, R
Winners and Losers, Sydney J. Harris.	ALL
Why Am I Afraid To Tell You Who I Am? John Powell. Classroom sets available.	
Fuzzies: A Folk Fable for All Ages, Richard Lessor.	ALL
I Am Loveable and Capable, Sidney Simon.	ALL
If You Don't Know Where You're Going, You'll Probably End Up Somewhere Else, David P. Campbell.	ALL
Self Actualization, Robert Vallett.	ALL
Job Family Series (SRA). Series of 20 booklets covering a wide range of jobs grouped by career cluster.	E, MI
Career Perspective: Your Choice of Work, Celia Denues. Classroom sets available at Miller and Ray.	ALL
Consumer Education - Viewing Your Career, David Stone.	ALL
What Job For Me Series. (Mc-Graw Hill) A series of 18 books, telling a story about a person in a particular occupation.	MI
Open Door Books. (Children's Press) Set of 36 paperbacks.	C

APPENDIX D

RELATING CAREER AWARENESS AND EDUCATIONAL GUIDANCE IN THE NINTH GRADE

Session No. and Time	Activity	Outcome
		. that the plan is temporary and can and should be changed based on experience, changing interests and goals. . the what, when, how and why of credits and graduation requirements.

APPENDIX E

INDIVIDUAL CAREER ASSESSMENT PROGRAM

CORPUS CHRISTI INDEPENDENT SCHOOL DISTRICT
Corpus Christi, Texas

Career Guidance Instruments

TO: Guidance Specialist
Career Education Center

Please administer the following test and/or inventory to the student listed below:

Name________________________________ Grade______

Instrument (check)

____ GATB
____ SVIB (W)
____ SVIB (M)
____ HVII
____ SSHA
____ WVI
____ OTHER______

Period	Subject	Teacher	Room
1			
2			
3			
4			
5			

9,'74

______________________________ ____________
Signature of Person Making Referral Date

General Aptitude Test Battery (GATB)

An instrument for use in career guidance that relates nine aptitude areas to occupational patterns covering over 1,200 titles. Occupations are arranged by worker traits groups to facilitate access to Volume II of the Dictionary of Occupational Titles. Results from the Career Center will be available in three working days.

TIME - approximately 2½ hours; RANGE - age 15 to adult

Strong Vocational Interest Blank (SVIB)

An inventory of interests and preferences intended to aid in predicting chances of success and satisfaction in a variety of occupations (most of which require college education). The occupational scales are based on the responses of men and women actually working in the various occupations. The computerized scoring (72 hours processing) provides an effective display format which includes definitions, scale explanations, research-based interpretative statements and all necessary Dictionary of Occupational Titles and Occupational Outlook Handbook references and codes necessary to effect a thorough occupational information follow up.

TIME - about 30 to 45 minutes; RANGE - mature juniors and seniors
with good academic preparation

Minnesota Vocational Interest Inventory (MVII)

An instrument modeled after the SVIB (same computerized scoring). However, it uses tradesman-in-general as the reference group, rather than professional and business occupations. It is intended for use with an application to male subjects who are not planning to go to college.

TIME - about 45 minutes; RANGE - age 15 to adult

Survey of Study Habits and Attitudes (SSHA)

The attitudes and work habits reflected by the SSHA are significantly related to academic success, though only moderately correlated with mental ability or scholastic aptitude. The scores identify those whose habits and attitudes may prevent them from taking full advantage of their educational opportunities. Results from the Career Center will be available in two working days.

TIME - about 20 to 25 minutes; RANGE - grades 7-12

Work Values Inventory (WVI)

The WVI measures and develops a profile of an individual's attitudes towards social and intellectual values identified by earlier research as important in determining a person's satisfaction and effectiveness in his career. Results from the Career Center will be available in two working days.

TIME - approximately 15 minutes; RANGE - grades 7-12

APPENDIX F

CAREER DEVELOPMENT THROUGH COMMUNITY EXPERIENCES

APPENDIX F

CORPUS CHRISTI INDEPENDENT SCHOOL DISTRICT
Corpus Christi, Texas

CAREER DEVELOPMENT THROUGH COMMUNITY EXPERIENCES

School personnel — teachers, counselors, others — would benefit from a first-hand look at business firms, industries, and public service agencies in our community. Observing and talking with people in their work-settings will give our educators impressions and information which will help make career guidance and education more relevant. Toward this end we are asking for support and participation by a variety of employers. The following Career Education activities are proposed:

Teacher and Counselor Tours

If educators are to teach students about the broader occupational society, it is essential that they see other work environments and learn about occupations involving all types of educational preparation, including those that students could enter upon graduation to those where apprenticeship, technical or a four-year degree program is required. The teacher would acquire information about occupations and implications for their subject area.

Student Tours

The primary purpose of a student field trip in Career Education is to see *people* at work, rather than just products or machinery. The object is to see people in the actual performance of their duties - with the air conditioning, dust, noise, bosses, co-workers, work hazards, and whatever else goes with the particular job.

Pairing

This is an extension of the field trip experience that involves more worker/observer contact. The purpose is to allow the participant the opportunity to observe more closely a worker in a specific occupation. Dialogue would focus on increasing the information base from which the student makes a decision in later life or that the counselor uses in counseling a student.

CORPUS CHRISTI INDEPENDENT SCHOOL DISTRICT
Corpus Christi, Texas

CAREER DEVELOPMENT THROUGH COMMUNITY EXPERIENCES

Name of Business/Industry____

Primary Career Cluster (see list below)__________________________

Address________________________________Phone_______________

Contact Person____

Would you:

Be willing to have teachers and/or counselors visit your business/firm on (please check) March 3____; April 25____; June 4____, 1975? Number you could accommodate per visit__________. Preferred time: a.m.______, p.m._____, either_____.

Provide field trip for: elementary_____; junior high_____; senior high_____ school students that shows what people do that you employ. Number you could accommodate per field trip_________. Preferred time: a.m._____, p.m._____, either_____.

Provide for pairing of a counselor/employee for a day or part of a day? Yes_____, No_____. Number of counselors_________.

Provide for pairing of a student/employee for a day or part of a day? Yes_____, No_____. Number of students________, age range of students preferred______________________.

Comments:

Career Clusters:

Agri-Business & Natural Resources
Business and Office
Communications and Media
Construction
Environment
Consumer and Homemaking
Fine Arts and Humanities
Health
Hospitality and Recreation
Manufacturing
Marine Science
Marketing and Distribution
Personal Services
Public Services
Transportation

_____________________________________ ______________________________
Signature Date Title

Return questionnaire to Dr. Tom Cron, CCISD, Box 110, Corpus Christi, TX 78403
2/14/75

FINAL EVALUATION REPORT FOR THE
CORPUS CHRISTI INDEPENDENT SCHOOL DISTRICT
CAREER EDUCATION REPORT

Prepared by:
Richard Mowsesian
Paul G. Liberty
Ruth M. Guenther

submitted by:
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ARBEC, Inc.
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Ms. Judy Guenther
Mr. Larry Liberty
Ms. Susan Ohm

TABLE LOCATOR FOR STATISTICAL REPORT

Grade	Information Contained in Tables	Questionnaires											
		TCEPF[1]		CEOQ (TF)[2]		CEOQ (S:E)[3]		CEOQ (S:A)[4]		WVI (S:E)[5]		WVI (S:A)[6]	
		Table	Page	Table	Page	Table	Page	Table	Page	Table	Page	Table	Page
3	Means & S.D.	2 3	33 34	4 5	35 36	9 11 13	42 44 46			18 20 22	52 56 60		
	Proportions	2 3	33 34	4 5	35 36	10 12 14	43 45 47			19 21 23	54 58 62		
	ANOVA* Summary	1	32			6 7 8	40 41 41			15 16 17	49 51 51		
5	Means & S.D.	25 26	66 67	27 28	68 70	32 34 36	76 78 80			41 43 45	86 90 94		
	Proportions	25 26	66 67	27 28	69 70	33 35 37	77 79 81			42 44 46	88 92 96		
	ANOVA* Summary	24	65			29 30 31	73 75 75			38 39 40	83 85 85		
9	Means & S.D.	48 49	99 100	50 51	101 102			55 57 59	108 112 116			64 66 68	124 128 132
	Proportions	48 49	99 100	50 51	101 102			56 58 60	110 114 118			65 67 69	126 130 134
	ANOVA* Summary	47	98					52 53 54	105 107 107			61 62 63	121 123 123
11	Means & S.D.	70	137	71	138			72	140			73	142
	Proportions	70	137	71	138			72	140			73	142
3,5,9	Means & S.D.	74 75	145 146	76 77	147 148								
	Proportions	74 75	145 146	76 77	147 148								
K-4 5-9 10-12	Means & S.D. Nongraded	78 80 82	150 152 154										
K-4 5-9 10-12	Proportions Ungraded	79 81 83	151 153 155										

[1] Teacher Career Education Participation Form
[2] Career Education Objectives Questionnaire (Teacher Form)
[3] Career Education Objectives Questionnaire (Student: Elementary)
[4] Career Education Objectives Questionnaire (Student: Advanced)
[5] Work Values Inventory (Student: Elementary)
[6] Work Values Inventory (Student: Advanced)

*ANOVA = Analysis of Variance

FINAL EVALUATION REPORT FOR THE
CORPUS CHRISTI INDEPENDENT SCHOOL DISTRICT
CAREER EDUCATION PROJECT

CHAPTER I

PROJECT OVERVIEW

A. Scope of Investigation. Four grades (3, 5, 9, 11) were identified for evaluation. Posttesting only was accomplished. Samples of classrooms were identified by the Career Education Project Staff. Classification variables included: (a) whether the teacher (and school) had participated in the Career Education Project either one or two years, and (b) whether the implementation level (rated by the Staff) was high, medium, or low. Both teachers and students were tested in the Career Education Project classrooms (experimental group). At grade 11, implementation year and level ratings of classrooms were not made since all high schools had been in the Program for two years.

Data from comparison (control) teachers were obtained but not from their pupils. Comparison group teachers were asked to complete and return the Teacher Career Education Participation Form with participation being encouraged but not required. Comparison group data were obtained from teachers at grades K-12 and from teachers of multi-grade content areas. (Note: Comparison classrooms have incorporated Career Education to varying degrees. All comparison classrooms have some CE activities underway in the District's effort to implement CE as little or as much as teachers want.)

B. Methodology: Instrumentation. The Experimental classrooms were tested with the following instruments:

1. Teachers: (a) Teacher Career Education Participation Form and the (b) Career Education Objectives Questionnaire (Teacher Form).

2. Pupils in the classrooms of the experimental teachers who were tested completed two instruments: (a) Career Education Objectives Questionnaire (Student Form) and the (b) Work Values Inventory. Both of these instruments consisted of two forms--an Elementary From for Grades 3 and 5 (developed specifically for this program) and an Advanced Form for Grades 9 and 11.

3. Comparison Group teachers completed the Teacher Career Education Participation Form since it was realized that virtually all teachers incorporated some career education instruction and activities in their classrooms. Thus, the present opportunity afforded a chance to demark a general baseline for Career Education activities at each grade level.

4. No comparison group pupils were tested, given budgetary and programmatic constraints.

5. All instruments were developed specifically for this Project, except for the Work Values Inventory--Advanced Form (Super, 1970).

C. Methodology: Analyses. Analyses were performed to answer various questions about the effectiveness and relative effectiveness of the Project. These questions were:

1. Do Experimental Teachers differ from Comparison Group teachers in their statements regarding career education activities, on the Teacher Career Education Participation Form?

2. Do classrooms that have been in the Career Education Project two years differ from those which have been in the Project one year on (a) teachers' scores on the Participation Form and the Career Education Objectives Form and (b) pupils' Career Education Objectives scores and Work Values Inventory scores?

3. Do classrooms classified as High, Medium, and Low Implementation classrooms by the Project Staff differ on the teacher and pupil measures mentioned in section 2 above.

4. In addition, comparative tables of descriptive data were prepared to show (a) the means and standard deviations of the items for the various grade groups and (b) the proportion of pupils and teachers who gave various responses to each item.

These analyses were accomplished to afford the Project Staff with both general and highly specific information on the attainment of career education objectives by teachers and pupils in the experimental groups and teachers in the comparison groups. Inasmuch as statistical significance may not imply practical significance, the Project decision-makers may wish to utilize both types of analyses provided in this Report in planning the Career Education Program for 1975-76.

D. Format for Presentation of Results. Analyses will be presented separately by grade level. Analysis of variance statistical procedures were used to assess differences between group means on the individual scale items, utilizing a F value of .20 to indicate statistical significance. Interpretive information will be provided as the grade results are presented with a larger summary at the end. It is hoped that this presentation format will help interested readers to understand the results and stimulate further questions that might be asked of this data. Evaluation reports should, if successful, generate additional questions and requests for further specification. Thus, the results to be presented will probably be more descriptive than interpretive since it remains for the decision-makers to elucidate the findings.

E. Questionnaire Item Descriptions. Figures 1-6 present the item numbers, item descriptions and rating scales for the six questionnaires used in the evaluation. Complete copies of the questionnaires can be found in the Appendix.

Figure 1

Teacher Career Education Participation Form*

Questionnaire Item Numbers	Item Description
1	Planned Career Education (CE) program
2	Use printed resource materials to enhance CE
3	Use outside speakers to enhance CE
4.	Use field trips for CE enrichment
5	Flexible classsroom management
6	Strong administrative support
7	Believe CE an important part of educational program
8	Encourage students to plan CE programs
9	Encourage students to be involved in implementing CE programs
10	CE programs are interwoven with regular curriculum
11	Promote student self-understanding
12	Use CE concepts in non-instructional ways
13	Help identify career interests with questions and inventories
14	Stress career decision-making skills in classroom activities
15	Teaching activities included which help students find jobs
16	Demonstrate energy and enthusiasm toward CE
17	Maintain a high degree of rapport with students
18	Enhance positive self-concept attitudes in students
19	Create an atmosphere in which students find it fun to learn
20	Refer students to the career center and/or career corner or areas
21	Use information from career center to enhance teaching
22	Use Career Guidance Specialist or Consultant to develop CE
23	Use Counselor to develop and implement CE in my classroom
24	Students explore their relationship to their communities
25	I have a good understanding of the world of work
26	Use "Comp. Time" for learning about CE and developing techniques for CE
27	Use Staff Development/In-Service time for learning about CE

---

* Rating Scale:

1. Not At All; 2. To a Slight Degree; 3. To a Great Degree; 4. To a Very Great Degree

Figure 2

Career Education Objectives (Teacher Form)*

Questionnaire Item Numbers	Item Description
1	Describe their current abilities, limitations
2	Describe their current interests and values
3	Display positive attitudes toward themselves
4	Recognize that social forces influence their development
5	Recognize that economic forces influence their development
6	Recognize that educational forces influence their development
7	Recognize that cultural forces influence their development
8	Demonstrate generally useful numerical skills
9	Demonstrate generally useful communication skills
10	Demonstrate generally useful processing skills
11	Demonstrate generally useful decision-making skills
12	Demonstrate generally useful interpersonal skills
13	Recognize the bases of various work values
14	Have positive attitudes toward paid and unpaid work
15	Describe the duties, abilities of different types of paid, unpaid work
16	Understand work conditions, life styles associated with different kinds of work
17	Describe entry requirements for major types of paid, unpaid work
18	Understand impact of social and technological change on paid, unpaid work
19	Specify factors that affect work success and satisfaction
20	Associate own abilties, limitations with success in present, future work
21	Relate personal interests, values to work and associated life styles
22	Identify, locate, use sources of information to solve career decision-making problems
23	Determine potential for advancement/growth in work of choice
24	Understand steps to be taken and factors to be considered in career planning
25	Demonstrate active involvement in career decision-making

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* Rating Scale:

1 = 1-25%; 2 = 26-50%; 3 = 51-75%; 4 = 76-100%

Figure 2 continued

Questionnaire Item Numbers	Item Description
26	Plan their work effectively
27	Adapt to varied work conditions
28	Demonstrate positive attitude towards concept of quality regarding work tasks
29	Demonstrate positive attitude toward conservation of environment, human resources
30	Demonstrate positive attitude to self-responsibility, accomplishment of self-imposed work tasks
31	Demonstrate a desire for continuous learning, both in school and out
32	Identify, locate, utilize information regarding paid, unpaid work possibilities
33	Demonstrate skills required in applying for and accepting work
34	Will succeed in finding work, further education, or unpaid work
35	Identify sources of additional education in major types of paid, unpaid work
36	Identify means of supporting additional education in paid, unpaid work

Figure 3

Career Education Objectives Questionnaire (Student Form: Elementary)*

Questionnaire Item Numbers	Item Description
1	I can tell you what I do well and what I cannot do very well
2	I can tell you what I like to do
3	I like myself
4	I know that other people are important to me
5	I know that money is important to me
6	I know that school is important
7	I know that my family is important to me as I grow up
8	I can do math
9	I can talk to other people
10	I understand what I am learning in school
11	I know how to decide what I want to do
12	I can get along with others
13	I know it is important to do my work on time
14	I want to get a job when I get older
15	I know about different kinds of jobs
16	I understand that all work is not the same, is done by different kinds of people
17	I know that different jobs require different skills
18	I understand that jobs change
19	I understand what it takes to be good at a job
20	I know what I like about different jobs
21	I have thought through my career plans
22	I plan my work
23	I can work well in different places
24	I believe in doing a good job in whatever I do
25	I believe that ecology and people should be used carefully in work
26	I believe I am responsible for my own behavior and for my work
27	I want to continue to learn things both in and out of school
28	I know where to go to find out about a job for me
29	I believe I am as smart as most of the pupils in my class

---

* Rating Scale:
1 = No; 2 = Somewhat; 3 = Yes

Figure 3 continued

Questionnaire Item Numbers	Item Description
30	I know as much about career education as most of the pupils in my class
31	I expect to finish high school
32	I expect to be going to college after I finish high school
33	I hear about career education in my classes
34	I know what career education is

Figure 4

Career Education Objectives Questionnaire (Student Form: Advanced)*

Questionnaire Item Numbers	Item Description
1	I can describe my abilities and limitations
2	I can describe my current interests and values
3	I have a positive attitude toward myself
4	I recognize that social forces influence my development
5	I recognize that educational forces influence my development
6	I recognize that economic forces influence my development
7	I recognize that cultural forces influence my development
8	I have useful numerical skills
9	I have useful communication skills
10	I have useful information processing skills
11	I have useful decision-making skills
12	I have useful interpersonal skills
13	I recognize the importance of work values such as being on time and meeting deadlines
14	I have positive attitudes toward the world of work
15	I can describe the major duties and abilities required by different types of jobs
16	I understand the differences in work conditions and life styles associated with different types of jobs
17	I can describe the entry requirements for major types of jobs or job clusters
18	I understand the effects of social and technological change on jobs
19	I can name the factors that affect job success and satisfaction
20	I can relate my abilities and limitations to possible success in jobs
21	I can describe my personal interests and values to types of jobs
22	I can identify, locate, and utilize sources of information to make career decisions
23	I can find out the potential for future advancement and personal growth in the work of my choosing
24	I understand the steps to be taken and the factors to be considered in career planning

---

* Rating Scale:
1 = No; 2 = Somewhat; 3 = Yes

Figure 4 continued

Questionnaire Item Number	Item Description
25	I have thought through my career plans
26	I plan my work effectively
27	I adapt easily to a variety of work conditions
28	I believe in doing a good job in whatever task I undertake
29	I believe that natural resources should be conserved in performing work
30	I believe that people have rights and feelings which should be respected as much as possible in accomplishing work
31	I believe that I am responsible for my own behavior and for accomplishing tasks
32	I want to continue to learn things, both in and out of school
33	I can identify, locate, and use sources that contain information about existing job possibilities
34	I know how to apply for work so that I stand a good chance of getting hired
35	I believe I can get placed in a paid occupation based on what I have learned in school
36	I believe I can go on to further education based upon what I have learned in school
37	I know where to find information about education required for major types of jobs or job clusters that I'm interested in
38	I believe I can find ways to support myself while getting the education required by jobs I'm interested in
39	I believe I am as smart as the majority of pupils in my class
40	I know as much about career edcuation as the majority of pupils in my class
41	I definitely expect to finish high school
42	I expect to be going to college after I finish high school
43	I hear about career education in my classes
44	I know what career education is
45	Career education is for all students
46	Career education is only for students going to college
47	I learn about clarifying personal values in school
48	I learn about setting of goals in school
49	I learn about making decisions in school
50	I learn about the use of leisure time in school
51	I learn about self awareness in school
52	I learn about career awareness in school
53	I learn about economic awareness in school

Figure 5

Work Values Inventory (Elementary Form)*

Questionnaire Item Numbers	Item Description
1	Have to keep solving new problems
2	Help others
3	Can get a raise in pay
4	Look forward to changes in your job
5	Have freedom in your work
6	Feel important in your work
7	Need to be a good artist
8	Are one of the gang
9	Know your job will last
10	Can be the kind of person you would like to be
11	Have a boss who treats you fairly
12	Like the place where you work
13	Get the feeling of having done a good day's work
14	Boss others
15	Try out new ideas and suggestions
16	Make something new
17	Know by the results when you've done a good job
18	Have a boss who is fair
19	Are sure of always having a job
20	Make the world a better place
21	Make your own decisions
22	Make enough money to live
23	Have to use your brain
24	Get to be the boss
25	Have rest rooms and lounges
26	Live the way you like when not working
27	Make friends with the people with whom you work
28	Know that others consider your work important
29	Do not do the same thing all the time
30	Feel you have helped another person
31	Do things to help other people
32	Do many different things

* Rating Scale:
1 = Not Important; 2 = A Little Important; 3 = Medium Important;
4 = Pretty Important; 5 = Very Important

Figure 5 continued

Questionnaire Item Numbers	Item Description
33	Are looked up to by others
34	Have good feelings about fellow workers
35	Live the kind of life you most enjoy
36	Have a good place in which to work
37	Help others plan their work
38	Need to be ready to think
39	Are paid enough to live right
40	Are your own boss
41	Make attractive products
42	Are sure of another job in the company if present job ends
43	Have a supervisor who understands me
44	See the results of your work
45	Contribute new ideas

Figure 6

Work Values Inventory (Advanced Form)*

Questionnaire Item Numbers	Item Description
1	Have to keep solving new problems
2	Help others
3	Can get a raise
4	Look forward to changes in your job
5	Have freedom in your own area
6	Gain prestige in your field
7	Need to have artistic ability
8	Are one of the gang
9	Know your job will last
10	Can be the kind of person you would like to be
11	Have a boss who gives you a square deal
12	Like the setting in which your job is done
13	Get the feeling of having done a good day's work
14	Have authority over others
15	Try out new ideas and suggestions
16	Create something new
17	Know by the results when you've done a good job
18	Have a boss who is reasonable
19	Are sure of always having a job
20	Add beauty to the world
21	Make your own decisions
22	Have pay increases that keep up with the cost of living
23	Are mentally challenged
24	Use leadership abilities
25	Have adequate lounge, toilet and other facilities
26	Have a way of life, while not on the job, that you like
27	Form friendships with your fellow employees
28	Know that others consider your work important
29	Do not do the same thing all the time
30	Feel you have helped another person
31	Add to the well-being of other people

---

* Rating Scale:
1 = Unimportant; 2 = Of little importance; 3 = Moderately important; 4 = Important; 5 = Very important

Figure 6 continued

Questionnaire Item Numbers	Item Description
32	Do many different things
33	Are looked up to by others
34	Have good contacts with fellow workers
35	Lead the kind of life you most enjoy
36	Have a good place in which to work (good lighting, quiet, clean, enough space, etc.)
37	Plan and organize the work of others
38	Need to be mentally alert
39	Are paid enough to live right
40	Are your own boss
41	Make attractive products
42	Are sure of another job in the company if your present job ends
43	Have supervisor who is considerate
44	See the results of your efforts
45	Contribute new ideas

CHAPTER II

SUMMARY OF FINDINGS

A. Introduction. The statistical section of this report provides Corpus Christi ISD with the promised data base for their CE Project and provides some insights into the program's essence. What generally emerges is that CCISD has not one CE program but many programs. This finding seems to verify that the CE Project's major objective, that being: "Career Education Programs are individualistic by grade and by school and each separate program will emerge based upon need," is being achieved. Thus, in reality there are many kinds of mini-programs which constitute the CCISD's overall CE Program. To this end, CCISD can be said to achieving its program goals.

When a major objective is stated as broadly as above, the problem of evaluation is to promote specification of the mini-programs. In an effort to start the specification process, project consultants were asked to identify, as best they could, representative classroom units across the school district that appeared to be implementing career education concepts and procedures at various implementation levels. These units were designated as High, Medium, and Low implementation. The project consultants who made these "guesstimates" are to be commended for their efforts. Although they were "put on the spot," classification of levels and types of activities had to begin somewhere. It really doesn't matter whether the consultants were consistent or inconsistent in their "guesstimates." Until they made their judgements we didn't have a starting point for the investigation. We knew there were many "mini-programs" but we didn't know what they were, in the sense of statements of teachers and pupils and test results from students. The data presented in this and in the next section now allows us to begin specification. Thus these data may properly be conceived as a starting point which leads to more definitive investigation next year.

B. Interpretation of Results. The approximately 90 tables contained in the Statistical Report with brief summary statements about the findings describe the Project in more detail than existed before. Previously, there was an "amorphous mass" or a "complex ball of twine." Through the efforts of the Project Staff, with some data manimpulations by the Third Party Evaluators, we've begun to unravel the ball. We don't know where every thread goes but we can begin to say what threads go with this type and that type of classroom or situation. More to the point of the Project, we've been able to identify some instructional situations which produce various results and which differ from other instructional situations in the results obtained. We've begun to differentiate, to specify, and to classify!

The statistical results point out some differences between groups. We know that certain groups score higher on certain items than do other groups. The items, as indicated previously, represent areas of career education. Hence, certain groups produce higher scores on certain career education objectives than do other groups. The third-party evaluation points out these higher and lower-scoring groups and it points out the areas of career education where the groups score differently. This appears to us to constitute powerful program information.

An example of how these data may be grouped to provide insights into program events is presented as Figures 7 and 8. Teachers were asked to rate the degree to which their students met the U.S.O.E.'s listing of Career Education objectives. The information contained in these figures was extracted from the teacher's responses to nine of the items of the Career Education Objectives Questionnaire. Some interesting observations may now be noted and are summarized below.

1. At grade 3, second year groups perceived their students as meeting CE objectives to a greater degree than year one groups.

2. At grades 5 and 9, second year groups were lower in their perceptions of students meeting CE objectives, than were year one groups.

3. Grade 11 groups generally perceive their students meeting CE objectives to a higher degree than other grades.

4. With the exception of objectives 4, 7, and 9 at grades 3 and 5, teachers perceive that more than 50% of the students meet or exceed the stated CE objectives.

It must be pointed out that these observations say nothing about which students (in what classroom units and via what kinds of CE experience) are achieving these objectives. Further, there is no available information concerning the degree to which non-CE units are also meeting these objectives. This type of information assumes a different unit of analyses.

The next step is for CCISD program personnel to further specify and interpret the findings. This Report makes it possible to do this. For example, the statistical results show that the High Implementation Group at grade 3 scores highest of the three Implementation groups on 10 items, lowest on 5 and intermediate on 5 items. We know what the items are. Therefore, program personnel can look at those items and specify the areas of career education where High Implementation pupils score the highest, intermediate, and lowest. Is this "good?" Only program specialists who know the situation can say whether this pattern of performance represents a "satisfactory" level of performance. One administrator might have wanted scores for this group (which is hypothetical) to be higher; another administrator might say that this group has been doing really great, considering.... Whatever the interpretation, we know that the High Implementation group differs from other Implementation groups on certain variables. And, we

Figure 7

Career Education Objectives: Teachers*

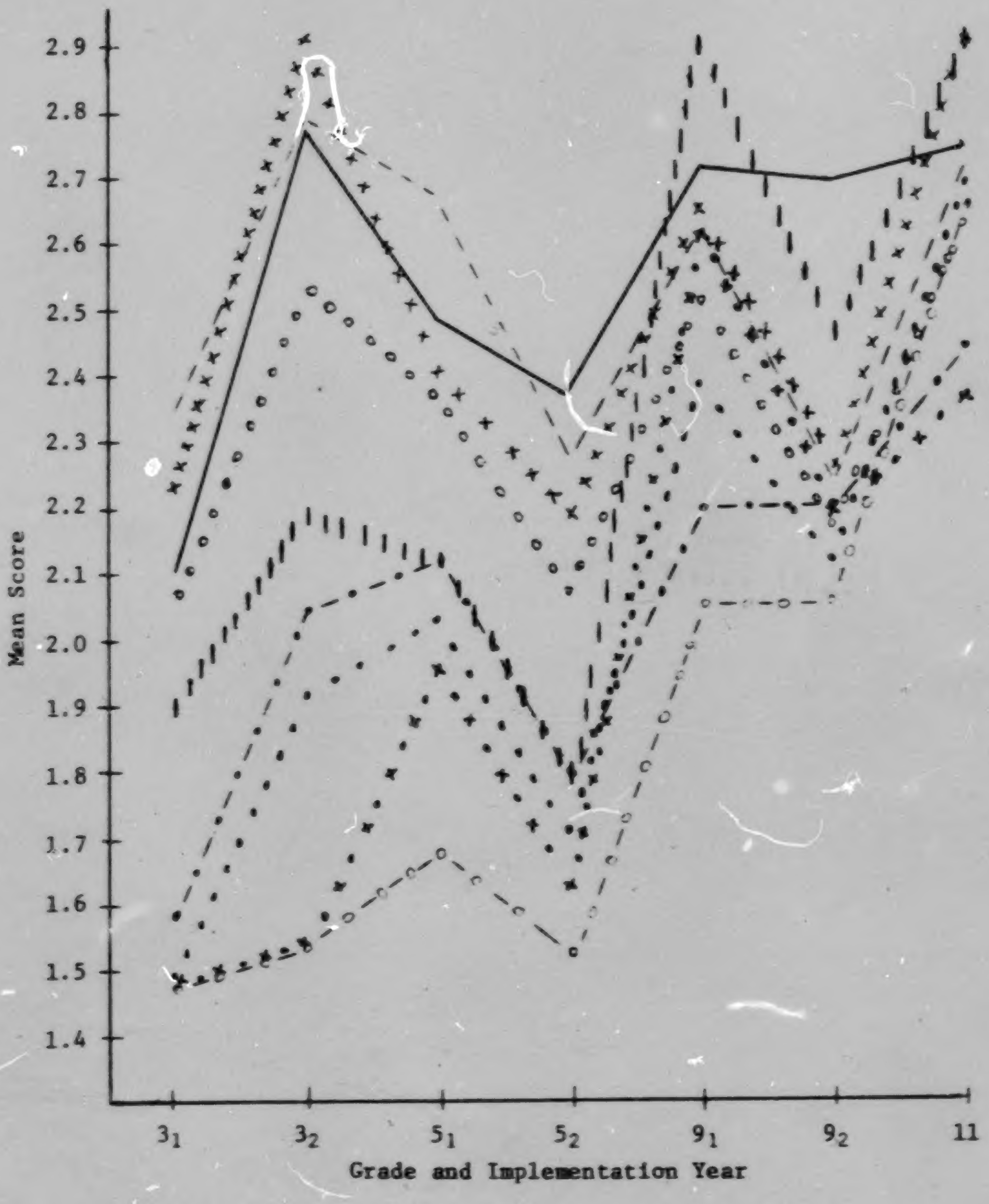


Figure 7 continued

*Key

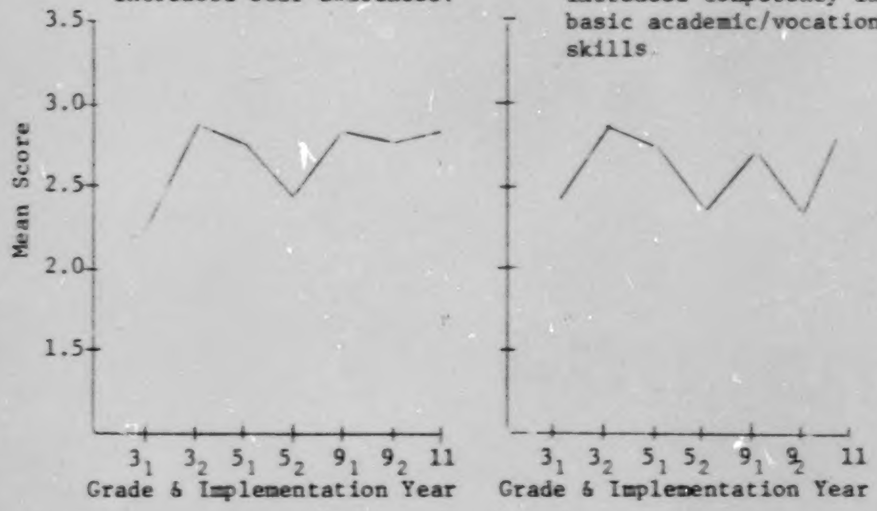
———	I.	Students will demonstrate increased self-awareness.
— — —	II.	Students will demonstrate increased competency in basic academic/vocational skills.
xxxxx	III.	Students will demonstrate increased awareness of work values and possess a desire to engage in paid and/or unpaid work.
-•-•-•	IV.	Students will demonstrate increased awareness and knowledge about work.
•••••	V.	Students will demonstrate increased competency in career decision making skills.
ooooo	VI.	Students will demonstrate good work habits.
o-o-o	VII.	Students will demonstrate work-seeking and work-getting skills.
|||||	VIII.	Students who are leaving the formal educational system will be successful in being placed in a paid occupation in further education, or in unpaid work that is consistent with their current career education.
x•x•x•	IX.	Students will be aware of means available for continued education once they have left the formal educational system.

Figure 8

Career Education Objectives: Teachers

I. Students will demonstrate increased self-awareness.

II. Students will demonstrate increased competency in basic academic/vocational skills



III. Students will demonstrate increased awareness of work values and possess a desire to engage in paid and/or unpaid work.

IV. Students will demonstrate increased awareness and knowledge about work.

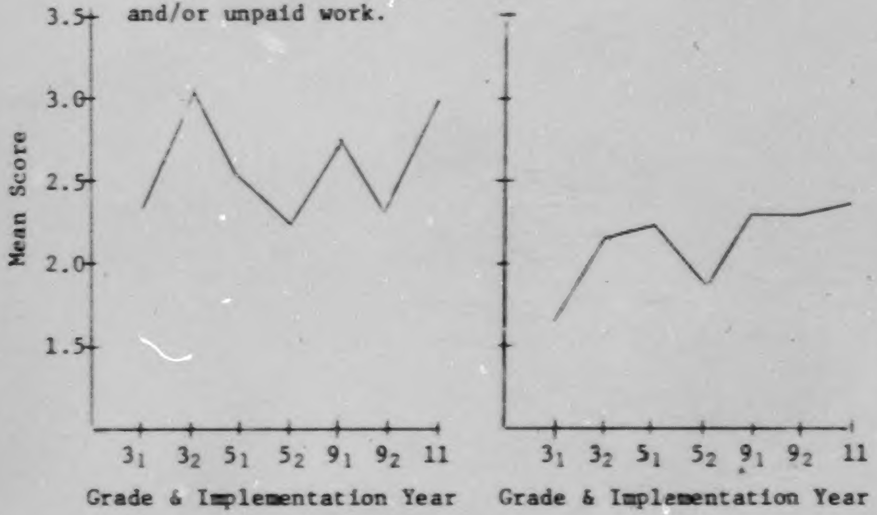
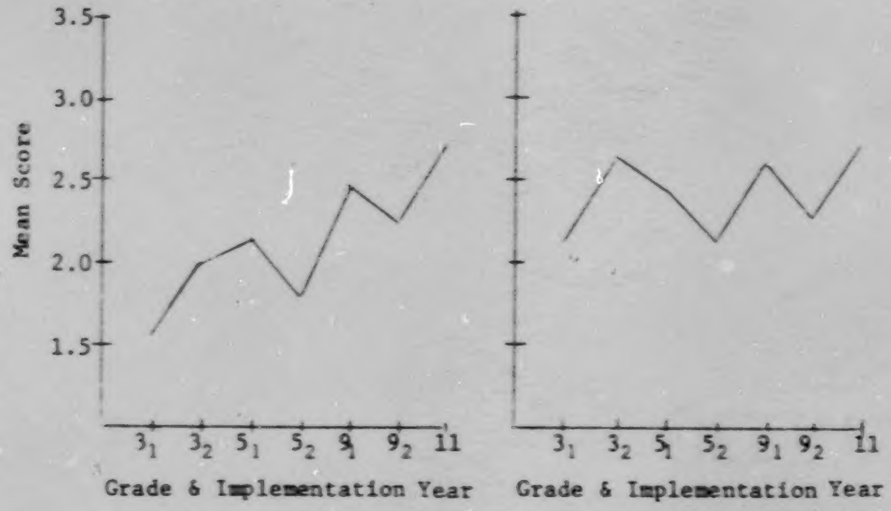


Figure 8 continued

V. Students will demonstrate increased competency in career decision making skills.

VI. Students will demonstrate good work habits.



VII. Students will demonstrate work-seeking and work-getting skills.

VIII. Students who are leaving the formal educational system will be successful in being placed in a paid occupation, in further education, or in unpaid work that is consistent with their current career education.

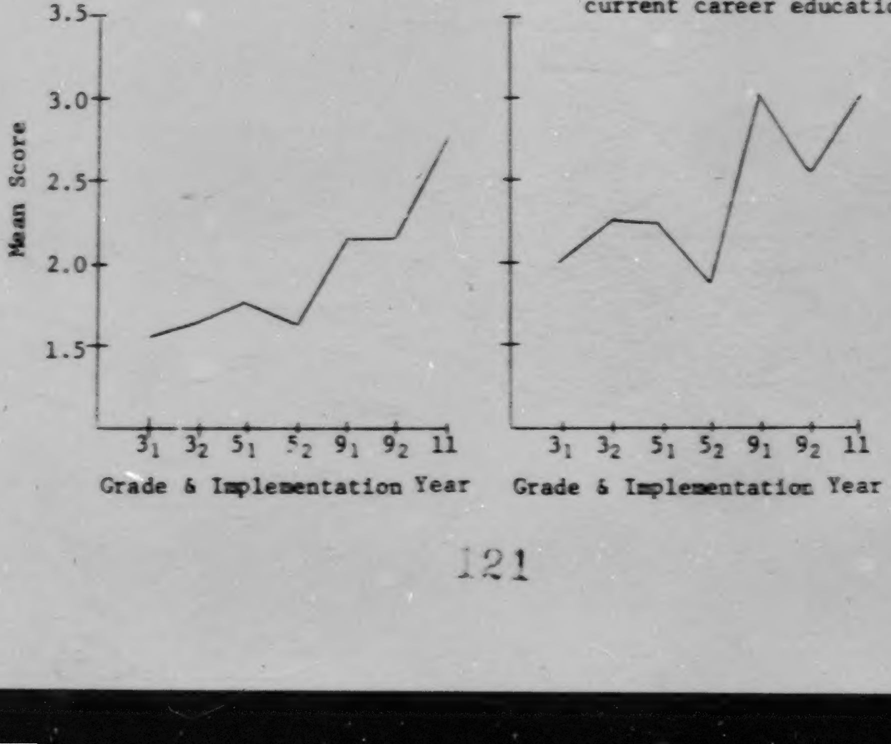
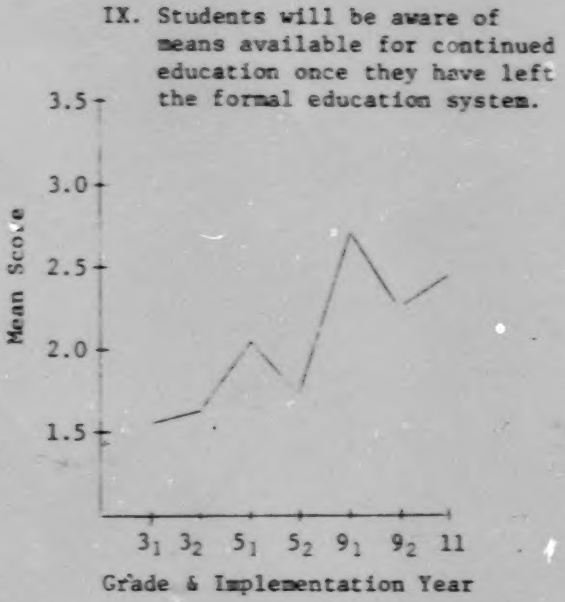


Figure 8 continued



IX. Students will be aware of means available for continued education once they have left the formal education system.

Mean Score for Each CE Objective
by Grade and Implementation Level

Career Education Objectives	Grade and Implementation Year						
	3_1	3_2	5_1	5_2	9_1	9_2	11
I	2.20	2.86	2.75	2.46	2.81	2.79	2.84
II	2.44	2.89	2.77	2.37	2.72	2.34	2.81
III	2.33	3.05	2.50	2.28	2.75	2.35	3.00
IV	1.67	2.15	2.22	1.89	2.30	2.30	2.54
V	1.59	2.02	2.13	1.80	2.47	2.22	2.77
VI	2.17	2.63	2.46	2.17	2.60	2.27	2.72
VII	1.56	1.63	1.77	1.61	2.15	2.15	2.75
VIII	2.00	2.29	2.22	1.88	3.00	2.56	3.00
IX	1.56	1.62	2.05	1.71	2.70	2.27	2.45

know therefore that something different was going on with the teacher or pupils or instruction, or some combination of these things, to produce the results. Whatever it was that went on, we want to capture it, to specify it. Because, now, we may want to do the same things to produce the same results. That's how programs are built! At least, that is how they are built in the real world where program people have to deal with loose variables and cannot be pushy about telling teachers and others what to teach. The interesting thing that emerges now is that we are moving closer to the time when we can say, if we want, that if teachers do certain things with certain pupils in career education (and we can specify these things), then you get certain kinds of results. We aren't there yet, but we are on the way with the results of the Statistical Report!

The figure below shows the various levels of interpretation that we should probably be considering.

1. "Amorphous Mass" (lowest level)	No "hard data," or statistical facts exist; "intuitive" judgemental statements, such as "I think we are doing great" or "don't know who is doing what."
2. "A Ball of Twine" (previous level)	Global data; very general; little or no specification.
3. Statistical Report (present level)	Data shows what is going on in various levels of the Project; identify strands, program elements.
4. Rather Specific Program Statements (next level)	Increased specification of who did what and how to get certain results.
5. Program Definitions (top level)	Do certain things to certain pupils in certain way to get certain results.

Currently, CCISD Career Education project is at Level 3. This is quite a way from Level 1. A rather comprehensive data base was needed to get to Level 3 and to move upward. Apparently NIE/USOE wants to go to Level 5 with their matrix (e.g., Mrs. Brown does such and such to reach a certain objective and gets such-such results which are higher than Mrs. Schultz who did something else). They can't get there because the public schools and their career education programs cannot be planned, implemented, and specified as quickly as OE people think. Also, they don't know how difficult it is to specify a program or mini-programs...they want to move from Level 1 to Level 4 in one jump and then leap to Level 5. We need to move step-by-step up the specification and program definition ladder. (Most career education programs in the public schools do not/cannot implement full-blown, integrated programs.) Rather, they implement implement activities and procedures, bits and pieces, that become integrated as programs through evaluation data, feedback, and planning, and more evaluative data, and so on.

All of the above is to suggest that the next step is to study the statistical results and understand the nature of the results. For example, what is the significance of, say, items 5, 6, 8, 9, 15 and 20 being those items on which the High Implementation group scored higher than other groups? What does this content have in common? Was anything in particular done to get these items to come out highest in the High Implementation group? Were other things done in the Medium and Low groups? What things were done in Medium and Low groups. Did High Implementation classroom teachers do only certain things to get "good" results on these items and "poor" results on other items (objectives)? Did High Implementation teachers have more experienced pupils or pupils with better backgrounds? These are the kinds of questions we asked in an attempt to determine why we got the results we did, be they "great" or "poor." By making group comparisons to see which group scored higher more often and which group scored higher on what items, we demark the program--in other words, the data gives us feedback (comparative information) on what is happening at various places in the Program or Project. Thus, program personnel, because they know the workings of the program or can find out if they have hunches, are needed to give meaning to provide interpretation of the results. So, while the Statistical Report identifies the groups, the items, and the numbers of pupils who gave certain answers, the next level of specification requires program interpretation. The Statistical Report points; the Program Report interprets.

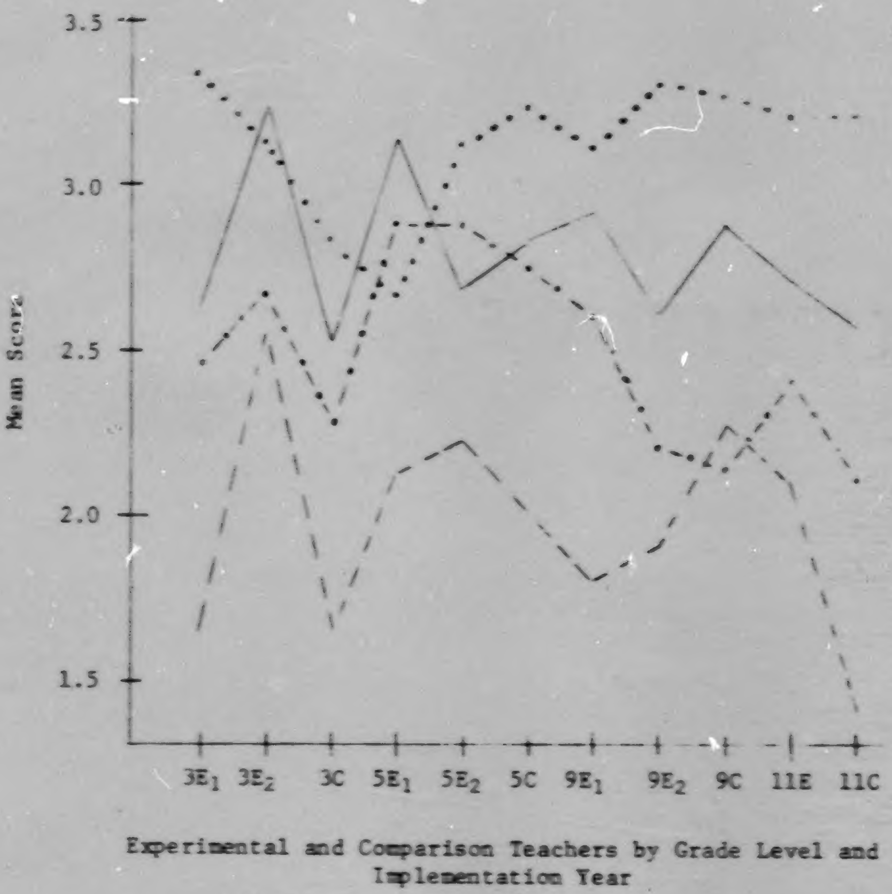
Another way items and group responses to items may be viewed is presented as Figure 9. Here we are looking at only four of the 27 items from the Teacher Career Education Participation Questionnaire. You will recall that both experimental and comparison teachers responded to these items. The mean responses for each grade, implementation year and each grades' comparison group have been plotted. As can be seen, the following summative statements may be made.

1. Teachers, regardless of grade, implementation year, or group, generally use printed materials to enhance Career Education.

2. Generally, all groups perceive interweaving Career Education into the regular curriculum. (This would seem to indicate that the true objectives of Career Education are really being met at all grade levels.

Figure 9

Profile of Selected Responses to
Teacher Career Education Participation Form
by Grade, Implementation Year and Comparison Groups*



*Key:

-·-·-· Item #2: Use printed resource materials to enhance CE.
______ Item #10: CE programs are interwoven with the regular curriculum.
······ Item #25: I have a good understanding of the world of work.
------ Item #27: Use staff development/inservice time for learning about CE.

Figure 9* (continued)

Mean Score for Certain Items of the Teacher Career Education Participation Form for Experimental and Comparison Teachers

Teacher[1] Group	Item 2	Item 10	Item 25	Item 27
3E_1	2.44	2.62	3.33	1.67
3E_2	2.67	3.22	3.11	2.56
3C	2.27	2.52	2.84	1.63
5E_1	2.89	3.11	2.67	2.11
5E_2	2.89	2.67	3.11	2.22
5C	2.73	2.81	3.22	2.03
9E_1	2.60	2.90	3.10	1.80
9E_2	2.20	2.60	3.30	1.90
9C	2.13	2.87	3.27	2.27
11E	2.40	2.70	3.20	2.10
11C	2.10	2.56	3.20	1.40

[1] E_1 = Experimental Teachers, Implementation Year 1

E_2 = Experimental Teachers, Implementation Year 2

C = Comparison Teachers

3. Generally, teachers feel they have a good understanding of the world of work with grade 3, Implementation Year 1 teachers and grade 5 Comparison and Implementation Year 2 teachers feeling most comfortable. Grade 11 Comparison teachers seem the least comfortable with their understanding. Perhaps they would welcome some help in this area.

4. Most groups generally use staff inservice training time to learn about Career Education. Grade 3 and 11 Comparison group and grade 3 first year Implementation teachers stand out as using the least amount of their time. Grade 3 second year implementers devote more staff or inservice training time to CE than any other group. The meaning derived from such conclusions are, of course, judgemental. How important these judgements are with regard to program changes depends upon the need of the school district, school and grade level.

A final example of how the data in the statistical report which follows may be used is examining student values as measured by the two forms of the Work Values Inventory. When one reviews the mean scale response by sex and grade as presented in the norm tables in the Appendix, there occurs a remarkable consistency across the various groups with regard to high and low work values. Figure 10 summarizes the three high work values and three low work values areas across sex and grade. Some common elements may be summarized as follows:

Figure 10

Identification of Three Highest and Three Lowest Work Values of Students by Grade and Sex

Rank		Grade 3		Grade 5		Grade 9		Grade 11	
		M	F	M	F	M	F	M	F
Highs	1	ER*	Al	ER	Al	WL	Se	WL	WL
	2	Al	SR	Al	SR	Se	ER	Ac	ER
	3	IS	IS Ac }tie	SR	ER	Al	WL	Al	Ac Se }tie
Lows	13	Va	In	In	In	Va	Va	In	Va
	14	In	Va	Va	Va	Es	Ma	Ma	Ma
	15	Ma	Ma	Ma	Ma	Ma	Es	Es	Es

*Key to scale names:

ER=Economic Returns Es=Esthetics In=Independence
Va=Variety SR=Supervisory Relations Al=Altruism
Se=Security IS=Intellectual Stimulation WL=Way of Life
Ma=Management Ac=Achievement

1. All groups except third grade females and ninth and eleventh grade males value Economic Returns (work which pays well), Altruism except 9th and 11th grade females, 9th and 11th graders value Way of Life, and 3rd grade females and 5th graders value Supervisory Relations (getting along with the boss).

2. Management (planning work for others) is not seen as important for any group as is generally true for Variety (work that provides different tasks) except 11th grade males. Independence (working at own rate) is not important for any except 9th graders and 11th grade females and Esthetics emerges as a low work value for 9th and 11th graders.

Some interesting questions can be raised with regard to these findings. Do these values reflect the value orientations the school district wants to foster? Are they reflective of community values in general? Depending upon the questions one raises and the directions one chooses to follow, program modifications, plans, etc. can be developed to reflect those areas important to the school district.

C. Types of Analyses in the Statistical Report. In order to help the key decision-makers, several levels of analyses are presented. These are stated below, although they are more fully described in the Report itself.

1. Experimental (Career Education) Groups pupils and teachers vs. Comparison (not identified as Career Education although these classrooms had some Career Education activities) pupils and teachers.

2. Experimental Group: two-year programs vs. one-year programs.

3. Experimental Group: High vs. Medium vs. Low Implementation Levels.

4. Means and standard deviations for all items for all groups in 1, 2, 3, and combinations thereof.

5. Proportions of teachers and pupils who gave each response alternative to each item (so you can see how many teachers said they were doing what and pupils said they knew what) for 1, 2, and 3 above, and all combinations.

6. Special charts that summarize the number of times that a certain group scored higher, lower, and in-between other groups; in other words, group ranks are presented to permit relative comparisons. (These data allow one to see where a group usually ranked and to identify the items on which a group is relatively stronger or weaker.)

Date are not presented by classrooms; in other words, if there were six classrooms at a certain implementation level, we made no breakdown to see whether the classrooms performed equally or whether there were broad differences in the results within the various classrooms.

(The reader may wish to have this information and can get it from the punched cards; in fact, this would seem to be a wise decision where there is reason to believe that the classrooms are not alike to the degree originally believed.) Also, student data were not broken down by sex of pupil, although the data base was created to contain this information and in fact does contain this information. Teacher data were not classified by areas of specialty at secondary level--if no grade information was presented, we left the data to show ungraded; this was done for both the Experimental and Comparison group teachers.

All analyses were performed on items with some suggested ways to group data (see previous section). This was done even for the Work Values Inventory which allows for subscale scoring.* Although it would have been easier to work with 15 scales than 45 items, the level of information would have been less specific. Almost invariably, whenever subscales are analyzed, the decision-maker (project director) asks, as he should, for specific item information. Hence, an item analysis has to be done later. In the present case, we anticipated the need for item-by-item analyses. Thus, there is consistency throughout the Report that the unit of analysis is the ITEM. Given the fact that individual items have lower variances than do scales, we used a P value of .20 to indicate statistical significance, instead of the more conventional P value of .05 or .10.

Finally, we need to mention that real-world projects, such as the Career Education Project, often have to and do make decisions that do not involve statistical significance. In our Report, we present both results on statistical significance and non-statistical significance so that the decision-maker can use various P levels as he sees fit. In fact, we believe it is important to recapitulate or summarize all results not just the statistical ones because the Program is trying to accomplish a purpose (problem-solving) rather than hypothesis-testing. Accordingly, we make mention that, say, 22 times out of 27 times the Experimental Group (Career Education) scored higher than the Comparison Group. And we mention that statistical significance, defined as a P value of .20, was found on 14 of the 27 items. Thus, TOTAL information is provided to accommodate the individual needs of the decision-maker(s).

D. Possible Uses of the Statistical Report. Uses of the Report has been a paramount concern since ARBEC, Inc. agreed to undertake the Project. Evaluation for decision-making and problem-solving is preferred rather than the opposing position of evaluation because the USOE or somebody else needs it or wants it. Evaluation is to be a useful mechanism, tool, and process; it is not to be a hardship or something that one has to go through. The Report should be examined with this in mind. If we have been "successful," (and "success" is defined by the Project) there will be questions, requests for additional results, and comments on how useful or understandable or interesting the data are. If utility is not seen by the Project, the Third-Party Evaluator packs up and goes away.

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*Norm data on subscales however is provided in the Appendix.

Obviously, then, the approaches toward evaluation and uses of evaluation are different, so different that one might say that there are irreconcilable differences.

The present approach can demonstrate to USOE, NIE, and TEA that an effort is underway in Texas to clearly delineate, specify, evaluate, and demonstrate that certain kinds of objectives are being accomplished at different levels, and that we are trying to understand what is contributing to the results so that integrated programs can be built. In trying to specify the mini-programs or sub-programs that exist, we are approaching the next phase where we can complete the program matrix that was mentioned at the start of the year. We have matricies now that are close to these and we can get an additional level of specification, even if we can't state that Mrs. Brown does this-and-that to reach this objective with these results. We have made a significant start.

The uses that come to mind immediately in regard to programmatic interpretations are essentially those that were mentioned above concerning item analyses. Efforts can be made by Project Staff to explore and explain why certain groups differed on certain items. This might indicate what kinds of programmatic things were done or should be done to reach superior results. Conversely, we might better understand the situations where less superior results were obtained. Then, consultants can emphasize the positive and eliminate the negative!!

There are instances where Low Implementation and Medium Implementation classrooms showed rather striking superiority over the High Implementation classrooms. A crucial study might be to determine what the results indicate. Is the instrument faulty? Should we try again with another instrument? But why should both Low and Medium groups score higher so very often?! What contributed to the possible mis-rating of the High classrooms and the low initial rating of the Low classrooms? What accomplished the results, that is, produced the (surprising) results? This line of questioning leads to program specification. By making these comparisons we are better qualified to understand what is going on in the Project. And, of course, we can move one step closer to the stage where we can say to teachers "how about trying this because, here, look at the results Ms. _____ got." Thus implementation of career education practices is promoted with new teachers. Then, we evaluate the classroom to see if this new teacher got results similar to the first effort.

Also, there are those analyses that try to specify a certain group to the extent you look at items where the group showed the highest mean scores, the lowest mean scores, and the middle range scores. From this information, what kind of program can be said to be characteristic of this group? For example, the group had a lot of self-esteem high scores but low scores on describing abilities and limitations. This might describe a teacher at the elementary level who did lots of work on making pupils feel good about themselves but didn't get into other areas. Maybe this teacher has a great approach to building esteem or maybe all her pupils started with high self-esteem. At any rate, the questions we ask contribute to further specification which is what Career Education efforts nationally appear to be emphasizing.

Observe also that there are proportions presented for all items. Thus, although the mean score may be important, we can go beyond the group average. We can actually specify the proportions of pupils who say they can do certain things (i.e., objectives). And we have teachers who said that a certain proportion of her pupils can do certain things. Obviously, some kind of comparison is possible here between the reports of the teachers and the reports of the pupils about pupil behaviors. But, perhaps, more immediately, program people have a beginning handle on what pupils can do and what teachers say they themselves do within Career Education. Examination of the proportion of pupils who endorse the highest rating (e.g., can do quite well) on various items can be studied to see where the self-reported strengths and weaknesses of the pupils are. Maybe next year, we might hit the low proportion objectives pretty hard in instruction.

Finally, the Program Consultants made ratings during the year on the objectives that are most important at various grade levels, that is, those objectives that were especially emphasized in instruction. Question: Were the objectives emphasized by consultants the same ones that were identified by teachers as being the ones that pupils could perform and were these the same objectives that the pupils (the largest number) said they could do? Should it be expected that if objectives A, B, and C were emphasized at grade 9, then High Implementation classrooms at grade 9 should score higher than Low Implementation classrooms? Or, do all these classrooms at grade 9 score equally on objectives A, B, C and differ on the less important objectives?

In these various ways, a Project can assess its workings.

CHAPTER III

STATISTICAL REPORT

Third Grade Results

A. Third Grade Teachers.

1. Third grade Experimental Teachers versus Third grade Comparison Teachers. Only the Teacher Career Education Participation Form was given to both Experimental and Comparison teachers. Table 1 shows the results of the analyses of variance for the Experimental and Comparison groups on the 27 items of the Teacher Career Education Participation Form.

a. Experimental Teachers scored higher than Comparison Teachers on 21 of the 27 scales. Comparison Teachers scored higher on 5. (Chi-Square=9.48; $P < .01$). Comparisons utilized the mean scores of the groups.

b. A statistically significant P value of .20 or less was found on six items (Numbers 2, 7, 10, 14, 25, and 27) with each difference between the group means favoring the Experimental group.

2. Third Grade Experimental Teachers. Tables 2 through 5 show results of frequency distributions for Teacher Career Education Participation Form and Career Education Objectives (Teacher Form). Means, standard deviations and proportion of teachers endorsing each alternative for each item are listed for Implementation Years 1 and 2, where Implementation Levels Low, Medium, and High are grouped together. Tables 2 and 3 show the results of the Teacher Career Education Participation Form, while Tables 4 and 5 show results of the Career Education Objectives Questionnaire (Teacher Form).

The group Ns were considered to be too small to perform analyses of variance for Implementation Year. However, comparing the performance of the two groups on these two measures, Implementation Year 2 (2-year program) scored higher (i.e., a higher mean score) than Implementation Year 1 on 19 of the 27 items of the Teacher Career Education Participation Form. Implementation Year 1 (1-year program) scored higher on 7 (Chi-Square=4.64; P=.03). Group means on 1 item (Number 19) were tied. Implementation Year 2 scored higher than Implementation Year 1 on 33 of the 36 items of the Career Education Objectives Questionnaire. Implementation Year 1 scored higher on 2 (Chi-Square=25.00; $P < .01$). Group measures on 1 item (Number 36) were tied.

Table 1

Grade 3

Teacher Career Education Participation Form

Analyses of Variance

Comparison vs. Experimental Teachers

Item Number	F Value	Probability	Experimental Teachers Mean (N = 18)	Comparison Teachers Mean (N = 27)	Which Group Scored Higher
1	0.04	0.84	2.22	2.19	Experimental
2	1.70	0.20*	2.56	2.27	Experimental
3	0.68	0.42	1.39	1.26	Experimental
4	0.10	0.76	1.56	1.63	Comparison
5	0.25	0.63	2.94	3.04	Comparison
6	0.89	0.35	2.78	2.56	Experimental
7	2.13	0.15*	3.06	2.67	Experimental
8	0.04	0.85	2.22	2.27	Comparison
9	0.06	0.80	2.17	2.22	Comparison
10	2.64	0.11*	2.94	2.52	Experimental
11	0.05	0.82	3.11	3.07	Experimental
12	0.79	0.38	2.72	2.52	Experimental
13	0.24	0.63	2.33	2.19	Experimental
14	2.22	0.14*	2.50	2.15	Experimental
15	0.00	0.98	1.83	1.84	Comparison
16	0.18	0.67	2.56	2.44	Experimental
17	0.40	0.54	3.17	3.04	Experimental
18	0.42	0.53	3.06	2.93	Experimental
19	0.15	0.70	3.00	2.93	Experimental
20	0.84	0.37	1.67	1.46	Experimental
21	0.21	0.65	2.17	2.04	Experimental
22	1.55	0.22	2.61	2.19	Experimental
23	0.05	0.81	2.00	2.07	Comparison
24	1.20	0.28	2.72	2.48	Experimental
25	2.58	0.11*	3.22	2.85	Experimental
26	0.00	0.94	1.61	1.59	Experimental
27	3.36	0.07*	2.11	1.63	Experimental

*Statistically significant difference ($P \leq .20$) was observed between the means of the two groups.

Table 2

Grade 3
Experimental Group. Teacher Career Education Participation Form
Implementation Year 1, All Implementation Levels
Means and Standard Deviations and Proportion of
Teachers Endorsing Each Alternative for Each Item
(N=9)

Item Number	Mean	S.D.	1	2	3	4
1	2.00	0.00	0	100	0	0
2	2.44	0.73	11	33	56	0
3	1.44	0.53	56	44	0	0
4	1.33	0.50	67	33	0	0
5	2.89	0.60	0	22	67	11
6	2.56	0.73	11	22	67	0
7	2.56	0.73	11	22	67	0
8	1.89	0.60	22	67	11	0
9	2.00	0.71	22	56	22	0
10	2.62	1.06	13	37	25	25
11	3.00	0.50	0	11	78	11
12	2.78	0.83	11	11	67	11
13	2.22	1.09	33	22	33	11
14	2.11	0.60	11	67	22	0
15	1.67	0.71	44	44	11	0
16	2.11	0.78	22	44	33	0
17	3.11	0.33	0	0	89	11
18	3.11	0.33	0	0	89	11
19	3.00	0.00	0	0	100	0
20	1.78	0.83	44	33	22	0
21	2.11	0.78	22	44	33	0
22	2.33	0.87	11	56	22	11
23	2.11	1.17	33	44	22	0
24	2.67	0.71	11	11	78	0
25	3.33	0.71	0	11	44	44
26	1.56	0.73	56	33	11	0
27	1.67	0.71	44	44	11	0

Table 3

Grade 3
Experimental Group, Teacher Career Education Participation Form
Implementation Year 2, All Implementation Levels
Means and Standard Deviations and Proportion of
Teachers Endorsing Each Alternative for Each Item
(N=9)

Item Number	Mean	S.D.	1	2	3	4
1	2.44	0.73	11	33	56	0
2	2.67	0.71	0	44	44	11
3	1.33	0.50	67	33	0	0
4	1.78	0.97	44	44	11	0
5	3.00	0.50	0	11	78	11
6	3.00	0.50	0	11	78	11
7	3.56	0.53	0	0	44	56
8	2.56	0.88	11	33	44	11
9	2.33	0.87	11	56	22	11
10	3.22	0.67	0	11	56	33
11	3.22	0.67	0	11	56	33
12	2.67	0.87	11	22	56	11
13	2.44	1.24	33	11	33	22
14	2.89	0.60	0	22	67	11
15	2.00	1.00	33	44	11	11
16	3.00	0.87	11	0	67	22
17	3.22	0.67	0	11	56	33
18	3.00	0.71	0	22	56	22
19	3.00	0.53	0	13	75	13
20	1.56	0.73	56	33	11	0
21	2.22	0.97	22	44	22	11
22	2.89	1.17	11	33	11	44
23	1.89	1.05	44	33	11	11
24	2.78	0.83	11	11	67	11
25	3.11	0.60	0	11	67	22
26	1.67	0.87	56	22	22	0
27	2.56	0.73	0	56	33	11

Table 4

Grade 3

Experimental Group. Career Education Objectives (Teacher Form)
Implementation Year 1, All Implementation Levels
Means and Standard Deviations and Proportion of Teachers Endorsing
Each Alternative for Each Item
(N=9)

Item Number	Mean	S.D.	1	2	3	4
1	2.11	0.93	22	56	11	11
2	2.78	0.97	0	56	11	33
3	2.67	0.87	0	56	22	22
4	1.89	0.78	33	44	22	0
5	1.75	1.04	63	0	37	0
6	2.44	0.53	0	56	44	0
7	1.78	0.83	44	33	22	0
8	2.67	0.71	11	11	78	0
9	2.78	0.83	0	44	33	22
10	2.22	0.67	11	56	33	0
11	2.22	0.83	22	33	44	0
12	2.33	0.87	22	22	56	0
13	2.22	0.97	33	11	56	0
14	2.44	1.24	33	11	33	22
15	1.78	0.83	44	33	22	0
16	1.78	0.83	44	33	22	0
17	1.33	0.50	67	33	0	0
18	1.56	0.53	44	56	0	0
19	1.89	0.60	22	67	11	0
20	1.67	0.50	33	67	0	0
21	1.89	0.78	33	44	22	0
22	1.44	0.53	56	44	0	0
23	1.56	0.73	56	33	11	0
24	1.44	0.53	56	44	0	0
25	1.56	0.73	56	33	11	0
26	1.78	0.67	33	56	11	0
27	2.25	1.04	25	37	25	13
28	2.00	0.76	25	50	25	0
29	2.22	0.97	22	44	22	11
30	2.44	0.53	0	56	44	0
31	2.33	0.50	0	67	33	0
32	1.50	0.53	50	50	0	0
33	1.62	0.74	50	37	13	0
34	2.00	0.76	25	50	25	0
35	1.50	0.53	50	50	0	0
36	1.62	0.74	50	37	13	0

Table 5

Grade 3

Experimental Group. Career Education Objectives (Teacher Form)
Implementation Year 2, All Implementation Levels
Means and Standard Deviations and Proportion of Teachers Endorsing
Each Alternative for Each Item
(N=9)

Item Number	Mean	S.D.	1	2	3	4
1	2.78	0.97	11	22	44	22
2	3.22	0.83	0	22	33	44
3	3.33	0.50	0	0	67	33
4	2.67	1.00	11	33	33	22
5	2.67	1.00	11	33	33	22
6	3.00	0.71	0	22	56	22
7	2.33	1.22	33	22	22	22
8	3.00	0.87	0	33	33	33
9	3.44	0.73	0	11	33	56
10	2.33	1.00	22	33	33	11
11	2.78	0.83	11	11	67	11
12	2.89	0.78	0	33	44	22
13	2.89	0.78	0	33	44	22
14	3.22	0.67	0	11	56	33
15	2.67	1.00	11	33	33	22
16	2.11	1.27	44	22	11	22
17	1.88	1.25	63	0	25	13
18	2.00	1.12	44	22	22	11
19	2.11	1.05	33	33	22	0
20	2.22	1.20	33	33	11	22
21	2.11	1.27	44	22	11	22
22	1.78	0.97	44	44	0	11
23	1.89	1.17	56	11	22	11
24	2.11	1.05	33	33	22	11
25	2.00	1.00	33	44	11	11
26	2.33	0.87	11	56	22	11
27	3.00	0.71	0	22	56	22
28	2.78	0.97	11	22	44	22
29	2.00	1.00	33	44	11	11
30	2.89	0.60	0	22	67	11
31	2.78	0.67	0	33	56	11
32	1.38	1.06	88	0	0	13
33	1.88	1.13	50	25	13	13
34	2.29	1.11	29	29	29	14
35	1.62	0.92	63	13	25	0
36	1.62	0.74	50	37	13	0

B. Third Grade Pupils.

1. Career Education Objectives Questionnaire. Table 6 shows the results of the analyses of variance for third-grade pupils for Implementation Years, Implementation Levels, and the Interaction of Implementation Years and Implementation Levels.

a. Second year pupils scored higher than first year pupils on 24 of the 34 items; first year students scored higher on 10 (Chi-Square=4.97; $p=.03$).

b. A statistically significant difference in Implementation Years ($P \leq .20$) was found on 14 out of the 34 items.

(1) A statistically significant P value of .20 or less was found on 11 items (Numbers 3, 10, 14, 15, 20, 21, 22, 26, 28, 33, and 34) in favor of the second year pupils.

(2) A statistically significant P value of .20 or less was found on 3 of these items (Numbers 5, 25, 29) in favor of the first year pupils.

c. A statistically significant difference ($P \leq .20$) in Implementation Level was found on 22 out of 34 items.

(1) Low Implementation Level pupils scored highest on 17 of these 22 items (Numbers 1, 2, 4, 9, 11, 13, 15, 16, 18, 19, 21, 22, 23, 24, 27, 28, and 30).

(2) Medium Implementation Level pupils scored highest on 5 of these 22 items (Numbers 6, 8, 26, 33, 34).

d. The Interaction of Implementation Year and Implementation Level was statistically significant ($P \leq .20$) for 18 items (Numbers 3, 4, 6, 8, 10, 11, 12, 13, 16, 19, 20, 22, 23, 24, 31, 32, 33, and 34).

e. Table 7 is a summary table which shows how many times a group classified by Implementation Year by Implementation Level (i.e., six groups) attained certain rankings on the items. Table 8 is a similar summary table for the three implementation levels. A clarification of these two tables follows.

Table 7 summarizes the information presented in column 7 of Table 6 (Rank Order of Groups). This column should be conceptualized as having six sub-columns. Each sub-column is headed by a number, the numbers range from 1 to 6. These numbers designate the six groups as defined in footnote 1 of Table 6. What is being compared in each row of column 7 (Table 6) are the means for these six groups for each item of the questionnaire. While the means themselves for each group for each item are not stated, the six means for each item have been rank ordered, the group attaining the highest mean being designated 1 and the group having the lowest mean designated 6. Thus the first row of column 7 (Table 6) states that for item 1, the mean of group 1 (Implementation Year 1, Implementation Level 1) ranked fifth, the mean of group 2 (Implementation Year 1, Implementation Level 2) ranked third, the mean of group 3 ranked fourth, the mean of group 4 ranked first (highest), the mean of group 5 ranked second, and the mean of group 6 ranked sixth (lowest). In reading down the sub-columns, each number of the first sub-column refers to the rank order of group 1 (Implementation Year 1, Implementation Level 1) for each item. The second sub-column refers to group 2 (Implementation Year 1, Implementation Level 2) and each number in that sub-column refers to the rank order of that group for that item. And so on for the remaining sub-columns. Each of the sub-columns has been tallied and the tally numbers entered in Table 7. For example, counting down the first sub-column, it can be seen that group 1 scored first 4 times, second 9 times, third 6 times, fourth 2 times, fifth 9 times, and sixth 4 times. These numbers form the first row of Table 7. The second row of Table 7 was found in the same manner from the second sub-column of column 7 (Table 6). The other four rows were filled in from the remaining sub-columns. Thus row 1 of Table 7 indicates that Implementation Year 1, Implementation Level 1 ranked first on four items, second on 9 items, and so on. The first column of Table 7 shows that Implementation Year 1, Implementation Level 1 ranked first 4 times, Implementation Year 1, Implementation Level 2 ranked first 6 times, Implementation Year 1, Implementation Level 3 never ranked first, Implementation Year 2, Implementation Level 1 ranked first 21 times, Implementation Year 2, Implementation Level 2 ranked first twice, and Implementation Year 1, Implementation Level 3 ranked first only once. The second column shows how many times each of the groups ranked second, and so on for the remaining columns.

Table 7 does not distinguish items or significance, but is a summary of rank which is useful in showing trends for the questionnaire as a whole for that grade level.

Table 8 presents the data from column 5 (Descending Order of Levels) of Table 6. It should be interpreted as follows. The first row of column 5 (Table 6) indicates that for item 1, the mean of the Low Implementation Level group ranked first (highest), the mean of the Medium Implementation Level group ranked second, the mean for the High Implementation Level group ranked third (lowest). The second row states that the mean of the Low group again ranked highest, the mean of the High group ranked second, and the mean of the Medium group ranked lowest. And so on for each item of the questionnaire. If column 5 (Table 6) is conceptualized as divided into three sub-columns, each letter in the first sub-column refers to the group whose mean for that item ranked highest, each letter in the second sub-column refers to the group whose mean ranked second, and each letter in the third sub-column refers to the group whose mean ranked lowest. Each of these sub-columns was tallied, and the tally numbers entered into Table 8. Thus row 1 of Table 8 states that the Low Implementation Level ranked first 25 times, second 8 times, and third or lowest 1 time. And so on for rows 2 and 3. Column 1 (Table 8) states that the Low Implementation Level group ranked first 25 times, the Medium Implementation Level group ranked first 7 times, and the High Implementation Level ranked first 2 times. Again, Table 8 does not distinguish items or significance, but is a summary table showing trends for the questionnaire as a whole for that grade level.

f. Table 9, 11, and 13 show means and standard deviations of pupil responses to items by Implementation Level and for the Total Group for Implementation Year 1, Implementation Year 2 and Implementation Year 1 and 2 taken together.

g. Proportions of pupils endorsing each alternative on each item by Implementation Level and for the Total Group for Implementation Year 1, Implementation Year 2 and Implementation Year 1 and 2 taken together are presented in Tables 10, 12, and 14.

Table 6

Grade 3

Career Education Objectives Questionnaire

(Student Form-Elementary)
Analyses of Variance

Item Number	Comparison of Implementation Years (A)		Which Year Higher	Comparison of Implementation Levels (B)		Descending Order of Levels[3]	Probability AxB [2]	Rank Order of Groups[1]
	F	P		F	P			1-2-3-4-5-6
1	1.03	0.31	2	3.04	0.05*	L-M-H	0.03*	5-3-4-1-2-6
2	1.39	0.38	1	1.78	0.17*	L-H-M	0.32	1-3-5-4-6-2
3	2.62	0.10*	2	0.31	0.74	L-M-H	0.20*	6-3-5-1-4-2
4	0.96	0.33	2	7.32	0.00*	L-H-M	0.04*	3-6-2-1-5-4
5	1.64	0.20*	1	1.19	0.31	L-H-M	0.73	1-5-2-3-6-4
6	0.66	0.42	1	1.91	0.15*	M-L-H	0.10*	2-1-6-4-5-3
7	0.58	0.45	2	0.86	0.43	L-H-M	0.97	2-5-6-1-4-3
8	0.69	0.41	1	8.05	0.00*	M-L-H	0.17	5-1-4-3-2-6
9	0.63	0.43	2	1.94	0.14*	L-M-H	0.55	2-3-6-1-4-5
10	5.86	0.02*	2	1.25	0.29	M-L-H	0.01*	6-2-5-1-3-4
11	0.71	0.40	1	1.66	0.19*	L-M-H	0.20*	2-5-3-1-4-6
12	0.37	0.55	2	1.28	0.28	L-M-H	0.00*	5-2-4-1-6-3
13	1.54	0.21	2	2.09	0.12*	L-M-H	0.12*	2-4-6-1-5-3
14	3.30	0.07*	2	0.24	0.79	H-L-M	0.27	5-3-6-2-4-1
15	11.61	0.00*	2	6.29	0.00*	L-M-H	0.45	3-4-6-1-2-5
16	0.04	0.83	2	1.99	0.14*	L-M-H	0.71	1-6-4-2-3-5
17	0.55	0.47	1	1.49	0.22	L-M-H	0.32	2-4-3-1-5-6
18	0.19	0.66	2	9.67	0.00*	L-M-H	0.78	2-4-5-1-3-6
19	0.50	0.49	2	4.35	0.01*	L-M-H	0.11*	4-2-6-1-3-5
20	1.83	0.17*	2	1.02	0.36	L-M-H	0.02*	6-2-4-1-3-5
21	11.18	0.00*	2	11.55	0.00*	L-M-H	0.38	3-4-6-1-2-5
22	7.88	0.01*	2	6.39	0.00*	L-M-H	0.77	3-5-6-1-2-4
23	0.44	0.52	2	4.95	0.01*	L-M-H	0.03*	4-2-6-1-3-5
24	1.17	0.28	1	3.28	0.04*	L-M-H	0.14*	3-1-5-2-6-4
25	5.03	0.02*	1	0.88	0.42	L-M-H	0.68	1-3-2-4-5-6
26	3.33	0.06*	2	4.16	0.02*	M-L-H	0.36	5-1-6-2-3-4
27	0.39	0.54	1	2.53	0.08*	L-M-H	0.80	2-4-3-1-5-6
28	28.85	0.00*	2	12.11	0.00*	L-M-H	0.35	5-3-6-1-2-4
29	1.85	0.17*	1	0.45	0.65	M-L-H	0.77	2-1-4-6-3-5
30	1.09	0.30	2	1.57	0.15*	L-M-H	0.58	3-4-5-2-1-6
31	0.45	0.51	2	0.99	0.37	L-H-M	0.04*	5-2-3-1-6-4
32	0.47	0.50	2	0.85	0.43	H-M-L	0.00*	6-2-3-1-5-4
33	9.26	0.00*	2	13.98	0.00*	M-L-H	0.00*	5-1-6-4-2-3
34	25.03	0.00*	2	18.82	0.00*	M-L-H	0.00*	5-2-6-3-1-4

[1] Groups in order in which reported:

1 = Implementation year 1, implementation level 1 (Low)
2 = Implementation year 1, implementation level 2 (Medium)
3 = Implementation year 1, implementation level 3 (High)
4 = Implementation year 2, implementation level 1 (Low)
5 = Implementation year 2, implementation level 2 (Medium)
6 = Implementation year 2, implementation level 3 (High)

[2] AxB: Interaction between Years of Implementation (A) and Levels of Implementation (B)

[3] L = Low Implementation Level
M = Medium Implementation Level
H = High Implementation Level

*Statistically significant difference (P ≤ .20) was observed between the means of the two groups.

Table 7

Grade 3

Career Education Objectives Questionnaire

(Student Form-Elementary)

How Many Times Any Group Ranked from Highest to Lowest

Group \ Rank Order	1 Highest	2	3	4	5	6 Lowest
IY1, IL1	4	9	6	2	9	4
IY1, IL2	6	8	7	7	4	2
IY1, IL3	0	3	5	6	6	14
IY2, IL1	21	5	3	4	0	1
IY2, IL2	2	7	8	5	7	5
IY2, IL3	1	2	5	10	8	8

IY=Implementation Year

IL=Implementation Level

1=Low
2=Medium
3=High

Table 8

Grade 3

Career Education Objectives Questionnaire

(Student Form-Elementary)

How Many Times an Implementation Level Ranked 1st, 2nd, or 3rd

	1st	2nd	3rd
Lo	25	8	1
Med	7	21	6
Hi	2	5	27

Table 9

Grade 3
Career Education Objectives Questionnaire
Implementation Year 1
Means and Standard Deviations of Pupil Responses to Items
by Implementation Level and for Total Group

Item Number	Low (N=78)		Medium (N=83)		High (N=80)		Total Group (N=241)	
	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.
1	2.49	.58	2.55	.63	2.50	.60	2.51	.60
2	2.90	.38	2.78	.55	2.67	.60	2.78	.53
3	2.54	.75	2.65	.64	2.51	.70	2.57	.05
4	2.76	.49	2.41	.82	2.78	.51	2.64	.65
5	2.62	.65	2.44	.79	2.60	.69	2.55	.72
6	2.92	.27	2.93	.24	2.74	.66	2.87	.44
7	2.91	.37	2.90	.45	2.86	.45	2.87	.42
8	2.53	.62	2.87	.38	2.55	.64	2.65	.57
9	2.68	.57	2.67	.59	2.58	.66	2.65	.60
10	2.42	.55	2.70	.61	2.59	.57	2.57	.58
11	2.49	.72	2.37	.75	2.47	.64	2.44	.70
12	2.42	.61	2.62	.67	2.44	.64	2.49	.64
13	2.94	.25	2.89	.39	2.77	.54	2.87	.41
14	2.71	.65	2.76	.53	2.70	.61	2.73	.60
15	2.13	.74	2.11	.76	1.95	.74	2.06	.75
16	2.83	.41	2.68	.67	2.72	.59	2.74	.57
17	2.63	.67	2.60	.74	2.61	.68	2.61	.69
18	2.65	.58	2.57	.65	2.36	.75	2.53	.67
19	2.62	.63	2.73	.57	2.49	.71	2.61	.64
20	2.37	.77	2.53	.71	2.39	.70	2.43	.73
21	2.40	.78	2.27	.82	1.85	.84	2.18	.84
22	2.46	.75	2.30	.87	2.21	.78	2.32	.81
23	2.32	.66	2.54	.69	2.22	.76	2.36	.71
24	2.77	.51	2.80	.49	2.59	.64	2.72	.55
25	2.85	.40	2.72	.58	2.72	.56	2.76	.52
26	2.78	.55	2.93	.26	2.71	.63	2.81	.51
27	2.85	.43	2.76	.60	2.76	.54	2.79	.53
28	2.00	.84	2.10	.81	1.71	.83	1.94	.84
29	2.23	.74	2.30	.76	2.17	.82	2.22	.77
30	2.26	.81	2.19	.81	2.14	.79	2.19	.80
31	2.75	.57	2.82	.52	2.79	.50	2.79	.53
32	2.49	.73	2.78	.52	2.77	.59	2.68	.63
33	2.55	.70	2.83	.46	2.10	.78	2.51	.72
34	2.15	.87	2.69	.62	1.90	.7[illegible]	2.27	.82

Table 10

Grade 3
Career Education Objectives Questionnaire
Implementation Year 1
Proportion of Pupils Endorsing Each Alternative on Each Item
by Implementation Level and for Total Group

Item Number	Low (N=78)			Medium (N=83)			High (N=80)			Total Group (N=241)		
	1	2	3	1	2	3	1	2	3	1	2	3
1	4	44	53	7	30	63	5	39	55	6	37	57
2	3	5	92	6	10	84	7	20	73	5	12	83
3	15	15	69	9	17	74	12	25	63	12	19	69
4	3	19	78	22	16	62	4	14	82	10	17	74
5	9	9	71	18	20	62	12	17	71	13	19	68
6	0	8	92	0	6	94	12	3	86	4	6	91
7	3	4	93	4	7	89	4	7	89	3	6	91
8	6	35	59	1	11	88	8	29	63	5	25	70
9	5	22	73	6	21	73	9	23	68	7	22	71
10	3	53	45	8	15	77	4	33	63	5	34	62
11	13	26	62	16	32	52	8	37	55	12	31	56
12	6	45	49	10	18	72	8	40	52	8	34	58
13	0	6	94	2	6	91	5	12	82	3	8	89
14	10	8	82	5	14	81	8	14	78	8	12	81
15	22	44	35	24	41	35	30	46	24	25	44	31
16	1	14	84	11	10	79	7	15	78	6	13	81
17	10	17	73	15	10	75	11	18	72	12	15	73
18	5	24	71	9	25	66	16	31	53	10	27	63
19	8	23	69	6	14	80	12	27	61	9	21	70
20	18	27	55	13	22	65	12	37	51	14	29	57
21	18	24	58	23	26	51	43	28	28	28	26	46
22	15	23	62	27	16	57	22	35	43	22	25	54
23	10	47	43	11	24	65	20	38	42	14	36	50
24	4	16	81	4	13	84	8	25	67	5	18	77
25	1	13	86	6	16	78	5	17	78	4	15	80
26	6	9	85	0	7	93	9	11	80	5	9	86
27	3	10	87	8	7	84	5	13	81	6	10	84
28	35	31	35	28	35	37	53	24	24	38	30	32
29	18	41	41	19	36	45	26	31	43	21	36	43
30	23	28	49	25	32	43	25	36	39	24	32	44
31	7	12	82	6	6	88	4	13	83	6	10	84
32	14	23	63	5	12	83	8	7	85	9	14	77
33	33	12	22	4	10	87	26	38	36	13	23	64
34	34	31	23	8	14	77	34	41	25	24	26	50

Table 11

Grade 3
Career Education Objectives Questionnaire
Implementation Year 2
Means and Standard Deviations of Pupil Responses
to Items by Implementation Level and for Total Group

Item Number	Low (N=66)		Medium (N=64)		High (N=83)		Total Group (N=213)	
	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.
1	2.75	.50	2.58	.67	2.38	.74	2.56	.67
2	2.73	.54	2.62	.64	2.80	.55	2.72	.58
3	2.75	.56	2.59	.72	2.66	.62	2.67	.63
4	2.83	.46	2.64	.61	2.65	.68	2.70	.60
5	2.50	.73	2.43	.78	2.46	.77	2.46	.76
6	2.83	.52	2.83	.52	2.84	.46	2.83	.50
7	2.94	.35	2.87	.42	2.90	.38	2.90	.38
8	2.62	.60	2.70	.56	2.48	.72	2.59	.64
9	2.80	.54	2.64	.58	2.63	.56	2.69	.56
10	2.79	.45	2.69	.56	2.62	.54	2.69	.52
11	2.51	.64	2.40	.73	2.23	.81	2.37	.74
12	2.73	.57	2.38	.73	2.48	.62	2.53	.65
13	2.94	.30	2.87	.42	2.92	.35	2.91	.36
14	2.82	.46	2.75	.60	2.89	.31	2.83	.46
15	2.46	.67	2.40	.74	2.06	.80	2.29	.76
16	2.82	.49	2.75	.54	2.69	.65	2.75	.57
17	2.82	.61	2.59	.62	2.42	.80	2.56	.70
18	2.74	.54	2.59	.67	2.34	.81	2.54	.71
19	2.80	.44	2.62	.59	2.53	.62	2.65	.57
20	2.71	.55	2.39	.72	2.46	.73	2.52	.69
21	2.58	.68	2.44	.79	2.26	.81	2.42	.77
22	2.73	.54	2.50	.74	2.35	.82	2.52	.73
23	2.60	.66	2.38	.64	2.24	.79	2.40	.72
24	2.78	.54	2.58	.64	2.61	.63	2.66	.61
25	2.66	.65	2.65	.66	2.61	.63	2.64	.64
26	2.92	.36	2.92	.38	2.82	.50	2.88	.43
27	2.86	.39	2.71	.58	2.70	.61	2.75	.54
28	2.57	.71	2.43	.79	2.04	.79	2.33	.79
29	2.06	.68	2.18	.72	2.12	.77	2.12	.72
30	2.34	.76	2.36	.75	2.12	.82	2.27	.79
31	2.95	.28	2.72	.67	2.78	.50	2.82	.51
32	2.81	.50	2.63	.71	2.72	.62	2.72	.62
33	2.66	.67	2.72	.58	2.66	.60	2.68	.62
34	2.57	.72	2.70	.59	2.44	.75	2.59	.70

Table 12

Grade 3

Career Education Objectives Questionnaire

Implementation Year 2
Proportion of Pupils Endorsing Each Alternative
on Each Item by Implementation Level and for Total Group

Item Number	Low (N=66)			Medium (N=64)			High (N=83)			Total Group (N=213)		
	1	2	3	1	2	3	1	2	3	1	2	3
1	3	18	78	10	22	68	15	31	54	10	24	66
2	5	17	78	8	22	70	7	7	87	7	15	79
3	6	12	82	14	14	73	8	18	74	9	15	76
4	3	11	86	7	23	70	12	12	77	7	15	78
5	14	23	64	17	22	60	17	20	63	16	21	62
6	6	5	89	6	5	89	4	9	87	5	6	88
7	3	0	97	3	6	90	3	5	92	3	4	93
8	6	26	68	5	20	75	13	26	61	8	24	67
9	6	8	86	5	26	69	4	29	67	5	22	74
10	2	18	80	5	21	74	3	33	64	3	25	72
11	8	34	58	15	31	55	23	30	47	16	31	53
12	6	14	80	15	33	52	6	39	54	9	29	62
13	2	3	95	3	6	90	3	3	95	2	4	94
14	3	12	85	8	8	83	0	11	89	3	10	86
15	10	35	56	15	30	55	29	36	35	18	34	47
16	5	9	86	5	15	80	10	10	79	7	11	82
17	8	17	76	7	28	66	20	18	62	12	21	67
18	5	17	79	10	21	69	22	23	56	13	20	67
19	2	17	82	5	28	67	6	33	60	4	26	69
20	5	20	75	14	34	53	14	26	60	11	26	63
21	11	20	69	18	20	62	23	28	49	18	23	59
22	5	17	78	15	21	65	22	21	57	14	20	66
23	9	22	69	8	46	46	22	32	46	14	33	53
24	6	9	85	8	26	66	8	23	69	7	20	73
25	9	16	75	10	16	74	8	23	69	9	19	72
26	3	2	95	3	2	95	5	8	87	4	4	92
27	2	11	88	6	16	77	8	14	78	5	14	81
28	12	18	69	18	20	62	29	38	33	20	26	53
29	20	55	26	18	46	36	24	41	36	21	47	33
30	17	31	52	16	31	52	28	32	40	21	31	47
31	2	2	97	12	3	84	4	14	82	5	7	88
32	5	10	86	13	10	77	9	10	81	9	10	81
33	11	13	77	7	15	79	6	21	73	8	16	76
34	14	6	80	7	16	77	15	26	59	12	17	71

Table 13

Grade 3

Career Education Objectives Questionnaire

Implementation Year 1 and 2

Means and Standard Deviations of Pupil Responses to Items by Implementation Level and for Total Group

Item Number	Low (N=144)		Medium (N=119)		High (N=163)		Total Group (N=454)	
	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.
1	2.61	.56	2.56	.65	2.44	.68	2.54	.63
2	2.82	.47	2.70	.60	2.73	.58	2.75	.55
3	2.64	.68	2.58	.72	2.59	.67	2.62	.67
4	2.79	.47	2.45	.80	2.71	.61	2.67	.63
5	2.57	.69	2.44	.79	2.53	.74	2.51	.74
6	2.88	.40	2.88	.42	2.79	.57	2.85	.47
7	2.92	.36	2.85	.46	2.88	.42	2.89	.41
8	2.57	.61	2.80	.48	2.52	.68	2.62	.61
9	2.73	.56	2.68	.57	2.61	.61	2.66	.58
10	2.59	.53	2.68	.61	2.60	.55	2.63	.56
11	2.50	.68	2.38	.74	2.35	.74	2.41	.72
12	2.56	.61	2.46	.73	2.46	.63	2.51	.65
13	2.94	.27	2.86	.44	2.85	.46	2.89	.39
14	2.76	.57	2.72	.60	2.80	.49	2.77	.54
15	2.28	.73	2.21	.80	2.01	.77	2.17	.76
16	2.83	.45	2.69	.63	2.70	.62	2.75	.57
17	2.65	.64	2.55	.71	2.51	.75	2.59	.69
18	2.69	.56	2.58	.66	2.35	.78	2.54	.69
19	2.70	.56	2.65	.61	2.51	.66	2.63	.61
20	2.52	.70	2.42	.73	2.42	.71	2.47	.71
21	2.48	.74	2.33	.84	2.06	.85	2.29	.82
22	2.58	.68	2.31	.86	2.28	.80	2.41	.78
23	2.45	.67	2.39	.70	2.23	.77	2.38	.72
24	2.77	.52	2.65	.59	2.60	.63	2.69	.58
25	2.76	.53	2.64	.65	2.67	.60	2.70	.58
26	2.85	.48	2.91	.34	2.77	.57	2.84	.47
27	2.85	.41	2.73	.60	2.73	.58	2.77	.53
28	2.26	.83	2.23	.82	1.88	.82	2.12	.84
29	2.15	.71	2.16	.76	2.14	.79	2.17	.75
30	2.30	.79	2.22	.80	2.13	.80	2.23	.79
31	2.84	.47	2.73	.64	2.79	.50	2.80	.52
32	2.63	.66	2.69	.64	2.74	.61	2.70	.63
33	2.60	.68	2.73	.57	2.39	.75	2.59	.68
34	2.38	.84	2.65	.65	2.18	.80	2.41	.78

Table 14

Grade 3

Career Education Objectives Questionnaire

Implementation Year 1 and 2

Proportion of Pupils Endorsing Each Alternative

on Each Item by Implementation Level and for Total Group

Item Number	Low (N=144)			Medium (N=119)			High (N=163)			Total Group (N=454)		
	1	2	3	1	2	3	1	2	3	1	2	3
1	3	32	64	9	26	65	11	35	55	8	31	61
2	4	11	86	7	16	77	7	13	80	6	13	81
3	11	14	75	14	15	71	10	22	68	11	17	72
4	3	15	82	17	21	62	8	13	79	9	16	76
5	11	21	68	19	18	63	14	18	67	15	20	66
6	3	6	91	3	5	91	8	6	86	5	6	90
7	3	2	95	4	7	89	3	6	91	3	5	92
8	6	31	63	3	13	83	10	27	62	7	24	69
9	6	15	79	5	22	73	6	26	67	6	22	72
10	2	37	61	8	17	76	3	33	63	4	30	67
11	10	29	60	15	31	54	16	34	51	14	31	55
12	6	31	63	14	25	61	7	40	53	8	32	59
13	0	5	94	3	7	90	4	7	89	3	6	91
14	7	10	63	8	12	80	4	12	84	6	11	83
15	16	40	44	23	33	44	29	41	30	22	39	39
16	3	12	85	9	13	78	9	13	79	7	12	81
17	9	17	74	12	20	68	15	18	67	12	17	71
18	5	21	74	10	22	68	19	27	54	11	24	65
19	5	20	75	7	21	72	9	30	61	7	24	70
20	12	24	64	14	29	57	13	31	56	13	28	60
21	15	22	63	24	19	57	33	28	39	23	25	52
22	11	20	69	26	17	57	22	28	50	18	22	59
23	10	35	55	12	36	51	21	35	44	14	35	52
24	5	13	82	6	22	72	8	24	68	6	19	75
25	5	14	81	10	17	74	7	20	73	6	17	77
26	5	6	90	2	5	93	7	9	84	5	7	89
27	2	10	87	8	12	80	7	14	79	5	12	83
28	24	25	50	24	28	48	41	31	28	30	28	42
29	19	47	34	22	41	38	25	36	39	21	41	38
30	20	30	50	23	31	45	26	34	39	23	32	45
31	4	7	89	11	5	84	4	14	83	6	9	86
32	10	17	73	10	12	78	9	9	83	9	12	79
33	11	18	71	6	15	79	16	29	55	11	20	69
34	23	15	61	9	16	74	24	33	42	19	22	60

2. Work Values Inventory (Elementary Form). Table 15 shows the results of the analyses of variance for third-grade pupils by Implementation Year, Implementation Level, and Interaction of Implementation Year and Implementation Level.

a. Second year pupils scored higher than first year pupils on 23 of the 45 items. First year pupils scored higher on 22 of the items (Chi-Square = 0.00, not significant).

b. A significant difference in Implementation Year ($P \leq .20$) was found on 19 of the 45 items.

(1) A significant P value of .20 or less was found on 13 of the items in favor of the second year pupils (Numbers 2, 4, 6, 7, 8, 14, 17, 24, 25, 29, 30, 32, 37).

(2) A significant P value of .20 or less was found on 6 of the items in favor of the first year pupils (Numbers 9, 15, 21, 22, 36, 41).

c. A significant difference in Implementation Level ($P \leq .20$) was found for 22 out of the 45 items.

(1) Medium Implementation Level pupils scored highest on 17 of these items (Numbers 1, 4, 5, 6, 8, 12, 13, 19, 24, 28, 29, 32, 34, 37, 40, 41, 45).

(2) High Implementation Level pupils scored highest on 4 of these items (Numbers 2, 7, 20, 25).

(3) Low Implementation Level pupils scored highest on 1 of these items (Number 15).

d. The Interaction of Implementation Year and Implementation Level was found to be significant ($P \leq .20$) for 21 of the 45 items (Numbers 1, 3, 5, 7, 8, 9, 11, 14, 17, 21, 22, 23, 25, 27, 32, 33, 34, 35, 37, 40, 45).

e. Table 16 is a summary table which shows how many times a group classified by Implementation Year by Implementation Level (i.e., six groups), attained certain rankings on the items. Table 17 is a similar summary table for the three implementation levels. Table 16 summarizes column 7 of Table 15 and Table 17 summarizes column 5 of Table 15 in the same manner as explained for Tables 6, 7, and 8 of the preceding section (Career Education Objectives Questionnaire).

f. Tables 18, 20, 22 show means and standard deviations of pupil responses to items by Implementation Level and for the Total Group for Implementation Year 1, Implementation Year 2, and Implementation Year 1 and 2 taken together.

g. Proportions of pupils endorsing each alternative on each item by Implementation Level and for the Total Group for Implementation Year 1, Implementation Year 2, and Implementation Year 1 and 2 are presented in Tables 19, 21 and 23.

Table 15

Grade 3
Work Values Inventory
Analyses of Variance

Item Number	Comparison of Implementation Years (A)		Which Year Higher	Comparison of Implementation Levels (B)		Descending Order of Levels[3]	Probability AxB [2]	Rank Order of Groups[1]
	F	P		F	P			1-2-3-4-5-6
1	1.17	0.27	1	11.16	0.00*	M-H-L	0.00*	3-1-5-6-2-4
2	4.63	0.03*	2	1.65	0.19*	H-M-L	0.27	6-5-2-4-1-3
3	1.51	0.22	2	0.09	0.92	M-L-H	0.02*	6-4-3-1-2-5
4	2.68	0.10*	2	5.22	0.01*	M-L-H	0.54	4-3-6-2-1-5
5	0.82	0.37	2	2.50	0.08*	M-H-L	0.06*	5-4-2-6-1-3
6	9.94	0.00*	2	3.79	0.02*	M-L-H	0.73	5-3-6-1-2-4
7	15.34	0.00*	2	4.76	0.01*	H-M-L	0.01*	6-3-5-1-2-4
8	11.38	0.00*	2	24.04	0.00*	M-H-L	0.01*	5-2-6-4-1-3
9	1.75	0.18*	1	0.58	0.57	H-M-L	0.10*	3-2-4-6-5-1
10	0.90	0.34	1	0.41	0.66	H-L-M	0.69	2-6-1-4-5-3
11	0.20	0.66	1	0.09	0.92	L-H-M	0.11*	1-5-4-6-2-3
12	0.11	0.74	2	4.63	0.01*	M-L-H	0.37	4-1-6-5-2-3
13	1.17	0.30	1	1.91	0.15*	M-H-L	0.53	6-1-2-5-3-4
14	13.21	0.00*	2	0.39	0.68	M-H-L	0.17*	5-4-6-2-3-1
15	3.21	0.07*	1	1.67	0.19*	L-H-M	0.47	1-3-2-4-6-5
16	0.12	0.73	1	0.14	0.87	M-H-L	0.53	3-1-4-2-6-5
17	1.83	0.17*	1	1.48	0.23	L-M-H	0.03*	1-2-6-4-5-3
18	0.91	0.34	2	1.06	0.35	L-M-H	0.75	2-5-6-1-4-3
19	0.46	0.50	2	2.64	0.07*	M-L-H	0.59	5-1-6-3-2-4
20	0.26	0.62	1	2.95	0.05*	H-M-L	0.39	5-3-2-4-6-1
21	1.60	0.20*	1	1.36	0.26	H-L-M	0.06*	1-3-5-4-6-2
22	3.81	0.05*	1	0.37	0.69	H-M-L	0.01*	3-1-4-6-5-2
23	0.02	0.88	1	0.05	0.95	M-H-L	0.00*	2-3-6-5-4-1
24	4.86	0.03*	2	3.12	0.04*	M-L-H	0.22	5-1-6-4-2-3
25	3.53	0.06*	2	0.60	0.55	H-M-L	0.20*	3-6-4-5-2-1
26	0.76	0.39	1	6.77	0.00*	H-L-M	0.40	3-4-2-6-5-1
27	0.69	0.41	1	0.10	0.90	M-L-H	0.18*	2-1-6-5-4-3
28	0.72	0.40	2	5.25	0.01*	M-H-L	0.40	5-2-4-6-1-3
29	4.48	0.03*	2	5.08	0.01*	M-L-H	0.86	5-2-6-5-1-4
30	1.18	0.17*	2	0.85	0.43	L-M-H	0.46	3-6-4-1-2-5

Table 15 continued

Item Number	Comparison of Implementation Years (A)		Which Year Higher	Comparison of Implementation Levels (B)		Descending Order of Levels[3]	Probability AxB[2]	Rank Order of Groups[1] 1 2 3 4 5 6
	F	P		F	P			
31	0.06	0.81	2	1.06	0.35	M-L-H	0.28	5-1-6-4-3-2
32	0.75	0.39	2	3.18	0.04*	M-L-H	0.02*	3-1-6-2-5-4
33	5.86	0.02*	2	0.45	0.64	L-H-M	0.02*	2-5-6-4-3-1
34	0.23	0.63	1	1.72	0.18*	M-H-L	0.00*	3-1-5-6-4-2
35	0.65	0.43	1	0.19	0.83	H-L-M	0.09*	2-3-4-5-6-1
36	2.68	0.10*	1	0.39	0.69	H-M-L	0.86	3-1.5-4-6-5-1.5
37	4.85	0.03*	2	3.68	0.03*	M-L-H	0.07*	4-3-6-5-1-2
38	0.32	0.58	2	0.70	0.50	M-L-H	0.50	5-2-4-1-3-6
39	0.82	0.37	1	0.09	0.91	L-M-H	1.00	1-2-3-4-5-6
40	1.54	0.21	2	2.38	0.09*	M-L-H	0.00*	4-3-6-5-2-1
41	3.45	0.06*	1	2.03	0.13*	M-H-L	0.63	6-3-5-4-2-1
42	1.12	0.29	1	0.63	0.54	H-M-L	0.35	1-4-3-6-5-2
43	0.15	0.70	2	0.67	0.52	L-M-H	0.69	1-2-6-3-4-5
44	1.36	0.24	1	1.43	0.24	M-H-L	0.31	3-2-4-6-1-5
45	0.21	0.65	1	1.81	0.16*	M-L-H	0.05*	2-1-6-5-4-3

[1] Groups in order in which reported:

1 = Implementation year 1, implementation level 1 (Low)
2 = Implementation year 1, implementation level 2 (Medium)
3 = Implementation year 1, implementation level 3 (High)
4 = Implementation year 2, implementation level 1 (Low)
5 = Implementation year 2, implementation level 2 (Medium)
6 = Implementation year 2, implementation level 3 (High)

[2] AxB: Interaction between Years of Implementation (A) and Levels of Implementation (B)

[3] L = Low Implementation Level
M = Medium Implementation Level
H = High Implementation Level

*Statistically significant difference (P .20) was observed between the means of the two groups.

Table 16

Grade 3
Work Values Inventory
Analyses of Variance
How Many Times A Group Attained a Certain Rank

Group \ Rank Order	1	2	3	4	5	6
	Highest					Lowest
IY1, IL1	7	7	11	4	11	5
IY1, IL2	12	10	11	5	4	3
IY1, IL3	1	6	3	11	5	19
IY2, IL1	6	4	3	12	9	11
IY2, IL2	8	12	5	6	9	5
IY2, IL3	11	6	12	7	7	2

IY=Implementation Year

IL=Implementation Level

1=Low
2=Medium
3=High

Table 17

Grade 3
Work Values Inventory
Analyses of Variance
How Many Times a Level Attained a Certain Rank

	1	2	3
Lo	8	18	19
Med	25	13	7
Hi	12	14	19

Table 18

Grade 3

Work Values Inventory Questionnaire

Implementation Year 1

Means and Standard Deviations of Pupil Responses to Items
by Implementation Level and for Total Group

Item Number	Low (N=78)		Medium (N=83)		High (N=80)		Total Group (N=241)	
	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.
1	4.13	1.27	4.47	1.11	3.77	1.35	4.13	1.27
2	4.12	1.21	4.20	1.30	4.50	1.00	4.27	1.19
3	3.88	1.44	4.04	1.78	4.28	1.25	4.06	1.30
4	3.37	1.44	3.58	1.43	3.19	1.53	3.38	1.47
5	3.67	1.56	3.73	1.56	3.94	1.49	3.78	1.53
6	4.11	1.32	4.28	1.14	3.83	1.42	4.07	1.30
7	2.74	1.74	3.82	1.48	3.11	1.65	3.24	1.68
8	2.71	1.52	3.91	1.36	2.35	1.63	3.00	1.65
9	4.23	1.26	4.30	1.10	4.12	1.44	4.22	1.27
10	4.48	.91	4.28	1.17	4.48	1.00	4.11	1.03
11	4.63	.85	4.31	1.26	4.45	1.00	4.46	1.06
12	4.19	1.25	4.54	.87	3.95	1.48	4.23	1.24
13	4.23	1.07	4.36	.88	4.42	1.19	4.43	1.06
14	2.12	1.57	2.55	1.69	2.07	1.53	2.25	1.61
15	4.34	.98	4.21	1.18	4.21	1.09	4.25	1.09
16	4.03	1.04	4.23	1.18	4.03	1.25	4.09	1.16
17	4.53	.86	4.48	1.06	4.03	1.29	4.35	1.10
18	4.54	.94	4.35	1.18	4.28	1.23	4.39	1.13
19	4.25	1.12	4.50	1.06	4.08	1.23	4.28	1.14
20	4.22	1.09	4.46	1.12	4.54	.94	4.41	1.06
21	4.17	1.24	3.80	1.37	3.57	1.47	3.84	1.38
22	4.70	.77	4.73	.75	4.45	1.20	4.63	.93
23	4.66	.81	4.65	.85	4.29	1.15	4.53	.96
24	3.33	1.51	3.84	1.44	3.12	1.54	3.44	1.52
25	3.86	1.61	3.58	1.70	3.83	1.41	3.75	1.58
26	3.59	1.43	3.38	1.66	3.93	1.46	3.63	1.53
27	4.40	.99	4.48	.97	4.21	1.07	4.36	1.02
28	4.09	1.19	4.34	1.02	4.16	1.13	4.20	1.11
29	3.48	1.59	3.78	1.36	3.17	1.61	3.48	1.53
30	4.46	.81	4.24	1.11	4.36	1.10	4.35	1.02
31	4.30	.99	4.58	.86	4.22	1.26	4.37	1.06
32	4.11	1.17	4.24	1.15	3.55	1.29	3.97	1.24
33	3.99	1.29	3.60	1.46	3.43	1.38	3.67	1.40
34	4.15	1.07	4.41	1.15	3.83	1.47	4.14	1.26
35	4.47	.89	4.46	1.10	4.29	1.24	4.41	1.09

Table 18 continued

Item Number	Low (N-78)		Medium (N=83)		High (N=80)		Total Group (N=241)	
	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.
36	4.55	.99	4.57	.93	4.42	1.14	4.51	1.02
37	4.09	1.26	4.27	1.21	3.74	1.48	4.04	1.33
38	4.41	1.05	4.55	.94	4.41	1.05	4.46	1.01
39	4.61	.77	4.59	.83	4.57	.92	4.59	.84
40	3.66	1.47	3.78	1.54	3.03	1.52	3.50	1.54
41	3.72	1.42	4.12	1.26	3.84	1.47	3.90	1.39
42	4.21	1.09	4.16	1.27	4.18	1.25	4.18	1.21
43	4.41	.87	4.40	1.04	4.18	1.28	4.33	1.07
44	4.30	1.06	4.34	1.11	4.28	1.16	4.31	1.11
45	4.37	.88	4.40	1.05	3.93	1.35	4.24	1.12

Table 19

Grade 3

Work Values Inventory Questionnaire

Implementation Year 1

Proportion of Pupils Endorsing Each Alternative on Each Item by Implementation Level and for Total Group

Item Number	Low (N=78)					Medium (N=83)					High (N=80)					Total Group (N=241)				
	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
1	6	9	8	18	58	6	2	5	12	75	6	15	19	13	46	6	9	11	14	60
2	8	4	8	29	51	7	7	10	10	66	4	3	6	14	73	6	5	8	17	64
3	12	11	7	20	51	5	9	11	28	47	9	1	8	16	66	9	7	9	21	55
4	16	11	25	16	32	15	7	20	31	37	22	14	15	21	28	18	11	20	19	32
5	18	5	16	12	49	19	4	15	12	51	13	9	9	10	59	17	6	13	11	53
6	9	7	7	20	58	2	9	13	11	65	12	9	12	19	48	8	8	10	17	57
7	44	6	8	14	27	16	5	10	21	49	29	8	20	9	34	29	6	13	15	37
8	34	12	23	12	19	10	7	15	17	51	50	14	9	5	22	31	11	16	11	31
9	8	4	10	13	65	5	2	12	18	62	14	1	8	12	65	9	3	10	14	64
10	1	3	13	13	70	6	5	6	21	62	4	3	6	16	71	4	3	8	17	68
11	1	4	4	12	79	10	0	9	12	69	3	3	13	11	73	5	2	9	12	73
12	8	4	9	19	60	1	4	6	17	72	15	3	10	15	56	8	3	9	17	63
13	5	1	13	26	55	2	2	5	10	80	6	5	5	8	76	5	3	8	14	71
14	61	5	8	11	15	50	4	7	19	20	61	9	8	8	14	57	6	8	13	16
15	3	3	13	22	60	6	5	10	21	59	4	5	12	25	55	4	4	11	22	58
16	1	6	25	23	44	4	10	7	17	61	8	5	14	23	50	4	7	15	21	52
17	0	5	8	16	71	6	1	2	19	72	8	5	17	16	54	5	4	9	17	66
18	4	1	4	18	72	5	6	10	7	72	6	6	6	14	67	5	5	7	13	70
19	3	11	4	24	59	5	2	6	11	76	5	9	13	18	55	4	7	8	18	63
20	4	4	14	21	57	6	2	5	12	74	3	4	4	16	74	4	3	8	16	68
21	8	3	11	19	58	12	6	14	25	42	17	5	21	18	39	13	5	16	21	46
22	1	3	3	12	82	1	2	4	7	85	8	3	4	8	78	3	3	3	9	82
23	1	3	5	11	80	2	2	2	13	79	6	4	5	24	61	3	3	4	16	73
24	21	7	22	18	32	15	4	12	22	48	24	13	16	20	27	20	8	17	20	36
25	20	4	7	11	59	24	7	7	10	51	12	8	14	18	48	18	6	9	13	53
26	17	3	18	28	34	25	7	14	13	41	16	3	7	22	53	19	4	13	21	43
27	3	5	5	23	64	4	1	8	18	70	3	6	14	22	55	3	4	9	21	63
28	8	1	16	25	51	4	2	10	24	60	4	7	12	24	53	5	3	13	24	55
29	21	8	16	14	42	12	5	16	26	41	28	6	15	21	29	20	6	16	20	37
30	1	1	8	28	61	1	10	15	12	62	3	9	5	16	68	2	7	9	18	64
31	3	4	11	26	57	1	4	6	14	75	8	5	8	17	63	4	4	8	19	65
32	7	5	7	33	48	5	4	16	13	62	12	8	20	34	26	8	6	14	27	46
33	8	7	15	20	51	17	5	17	23	38	11	18	18	23	30	12	10	17	22	39
34	3	7	15	25	51	7	2	2	17	71	16	5	7	25	47	9	5	8	22	57
35	0	5	11	15	69	4	6	7	6	77	6	6	9	9	70	3	6	9	10	72
36	4	4	0	17	75	2	2	9	9	78	5	5	5	12	73	4	4	5	12	75
37	9	1	14	21	54	7	4	8	17	64	14	8	14	16	47	10	4	12	18	55
38	5	3	3	25	64	2	5	2	16	74	4	4	7	18	67	4	4	4	20	69
39	1	1	5	19	73	1	1	11	10	77	3	3	5	13	76	2	2	7	14	75
40	17	4	16	22	41	17	6	10	16	51	27	13	11	29	20	20	8	12	22	38

Table 19 continued

Item Number	Low (N=78)					Medium (N=83)					High (N=80)					Total Group (N=241)				
	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
41	15	4	17	23	41	9	2	14	19	57	12	12	8	16	52	12	6	13	19	50
42	4	4	15	21	56	6	8	12	11	63	8	3	12	16	60	6	5	13	16	60
43	0	5	9	25	61	5	1	8	[illegible]	65	8	5	11	13	63	4	4	9	20	63
44	3	7	9	21	61	4	6	10	14	66	5	5	9	17	63	4	6	9	17	63
45	1	1	14	25	58	2	4	16	7	70	11	5	14	20	50	5	3	15	17	60

Table 20

Grade 3

Work Values Inventory Questionnaire

Implementation Year 2

Means and Standard Deviations of Pupil Responses
to Items by Implementation Level and for Total Group

Item Number	Low (N=66)		Medium (N=64)		High (N=83)		Total Group (N=213)	
	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.
1	3.47	1.56	4.43	.99	4.09	1.12	3.99	1.30
2	4.41	.99	4.59	1.12	4.49	.90	4.50	1.00
3	4.36	1.12	4.32	1.07	3.96	1.35	4.19	1.21
4	3.70	1.31	3.90	1.39	3.22	1.40	3.57	1.39
5	3.61	1.41	4.32	1.14	3.79	1.51	3.89	1.40
6	4.55	1.00	4.51	.94	4.23	1.17	4.42	1.06
7	3.89	1.47	3.85	1.47	3.67	1.43	3.79	1.45
8	2.98	1.56	2.97	1.55	3.48	1.42	3.47	1.55
9	3.89	1.43	3.93	1.52	4.33	1.10	4.07	1.35
10	4.31	1.25	4.31	1.20	4.32	1.10	4.31	1.17
11	4.29	1.31	4.51	1.12	4.45	1.07	4.41	1.16
12	4.12	1.32	4.45	1.17	4.22	1.19	4.25	1.23
13	4.27	1.27	4.38	1.14	4.31	1.09	4.32	1.16
14	2.83	1.72	2.72	1.73	2.93	1.71	2.84	1.71
15	4.18	1.14	3.84	1.36	4.16	.97	4.07	1.15
16	4.05	.16	4.00	1.46	4.11	1.19	4.06	1.31
17	4.24	1.18	4.07	1.28	4.29	1.09	4.21	1.17
18	4.55	.96	4.44	1.07	4.48	.86	4.49	.95
19	4.32	1.07	4.44	1.03	4.28	1.03	4.34	1.04
20	4.29	1.20	4.20	1.31	4.58	.96	4.37	1.16
21	3.66	1.59	3.50	1.54	3.85	1.42	3.68	1.51
22	4.26	1.08	4.37	1.26	4.70	.88	4.46	1.08
23	4.36	1.16	4.44	1.89	4.75	.56	4.54	.99
24	3.67	1.48	3.84	1.53	3.74	1.53	3.75	1.51
25	3.78	1.46	4.11	1.39	4.16	1.23	4.03	1.36
26	3.19	1.57	3.37	1.57	3.96	1.37	3.54	1.53
27	4.22	1.08	4.22	1.31	4.39	1.12	4.29	1.17
28	3.98	1.30	4.57	.84	4.30	1.04	4.29	1.09
29	3.70	1.33	4.03	1.28	3.57	1.43	3.75	1.36
30	4.56	.97	4.54	1.04	4.36	1.06	4.48	1.03
31	4.37	1.10	4.39	1.16	4.18	1.00	4.39	1.08
32	4.11	1.17	4.02	1.34	4.08	1.03	4.07	1.17
33	3.84	1.41	3.95	1.20	4.16	1.29	4.00	1.30
34	3.79	1.11	4.05	1.30	4.38	1.04	4.10	1.17
35	4.24	1.23	4.21	1.17	4.53	.91	4.34	1.10

Table 20 continued

Item Number	Low (N=66)		Medium (N=64)		High (N=83)		Total Group (N=213)	
	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.
36	4.23	1.25	4.24	1.25	4.57	.85	4.36	1.12
37	4.03	1.24	4.50	1.02	4.33	1.04	4.29	1.11
38	4.62	.74	4.51	1.08	4.40	.92	4.50	.92
39	4.54	.79	4.52	.94	4.49	.85	4.52	.86
40	3.29	1.67	3.83	1.60	3.89	1.36	3.68	1.55
41	3.98	1.09	4.19	1.32	4.20	1.18	4.13	1.19
42	3.85	1.30	4.13	1.31	4.20	1.13	4.07	1.25
43	4.39	.97	4.37	1.22	4.35	.98	4.37	1.05
44	3.95	1.10	4.35	1.22	4.25	.94	4.19	1.09
45	4.05	1.17	4.27	1.18	4.23	1.04	4.19	1.12

Table 21

Grade 3

Work Values Inventory Questionnaire

Implementation Year 2

Proportion of Pupils Endorsing Each Alternative
on Each Item by Implementation Level and for Total Group

Item Number	Low (N=66)					Medium (N=64)					High (N=83)					Total Group (N=213)				
	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
1	20	8	20	12	41	2	5	11	13	69	2	10	13	26	49	8	8	14	18	52
2	0	9	9	14	68	6	3	2	3	86	3	3	5	23	67	3	5	5	14	73
3	2	11	9	8	71	2	8	11	15	64	11	4	13	22	51	5	7	11	15	61
4	6	17	14	25	37	8	13	10	17	52	16	14	27	18	25	11	15	18	20	37
5	8	20	17	13	42	5	2	17	8	68	14	11	9	15	51	9	11	14	12	53
6	5	2	5	12	77	2	5	7	15	72	4	9	9	17	62	3	5	7	15	70
7	13	9	9	14	55	11	11	11	11	54	13	9	20	15	43	12	10	14	14	50
8	27	14	18	15	26	15	8	7	7	64	15	11	14	29	30	19	11	13	18	39
9	12	5	18	11	54	16	3	8	15	57	4	4	14	12	67	10	4	14	12	69
10	8	5	5	14	69	7	5	7	15	67	4	6	8	19	63	6	5	6	16	66
11	9	5	6	9	71	7	2	3	10	78	6	0	6	17	70	7	2	5	13	73
12	9	6	6	20	58	5	5	9	2	79	6	5	10	19	60	7	5	8	14	65
13	9	5	2	20	[illegible]	3	8	8	8	72	5	1	15	16	63	6	4	9	15	66
14	38	9	14	8	31	42	12	8	10	28	38	6	7	21	27	39	9	10	14	29
15	6	3	8	31	52	8	11	18	15	48	1	2	25	22	49	5	5	18	22	50
16	9	5	15	15	56	13	8	5	16	59	7	5	6	32	49	10	6	9	22	54
17	3	9	14	9	65	7	7	18	11	57	4	6	7	22	60	4	7	13	15	61
18	2	8	2	14	76	2	10	5	10	74	1	2	9	22	65	1	6	5	16	71
19	3	6	9	20	62	3	3	10	13	70	4	4	9	28	56	3	4	9	21	62
20	6	[illegible]	8	16	65	10	3	8	15	64	2	5	5	7	80	6	4	7	12	71
21	20	6	9	17	48	18	10	19	11	42	13	6	13	20	48	17	7	14	17	46
22	3	3	20	12	62	8	5	5	8	75	2	4	1	6	86	4	4	8	9	75
23	8	0	8	17	67	8	3	0	14	75	0	0	6	12	81	5	0	5	14	75
24	14	10	16	16	44	14	8	14	6	57	17	6	9	20	47	16	8	13	15	50
25	14	8	12	18	48	11	3	11	10	64	7	5	9	22	57	11	5	11	17	56
26	28	3	17	25	27	21	10	18	15	37	11	5	11	20	52	20	6	15	20	40
27	5	3	11	28	53	8	6	10	8	68	6	1	9	15	69	6	3	10	17	64
28	6	11	13	17	52	2	2	8	16	73	2	5	13	20	60	3	6	11	18	62
29	9	11	17	25	37	5	8	25	3	59	15	7	21	20	37	10	9	21	17	44
30	3	5	2	14	77	3	6	3	8	79	5	2	6	24	63	4	4	4	16	72
31	5	2	15	9	69	6	3	6	13	71	4	0	14	15	67	5	1	12	13	69
32	6	6	8	31	49	8	7	18	10	57	2	6	15	34	42	5	6	14	26	49
33	11	11	6	25	46	3	11	20	18	48	7	9	5	19	60	7	10	10	20	52
34	3	11	21	33	32	6	8	19	8	59	4	5	5	22	64	4	8	14	21	53
35	8	3	8	19	62	2	13	11	13	62	1	5	6	15	73	3	7	8	15	66

Table 21 continued

Item Number	Low (N=66)					Medium (N=64)					High (N=83)					Total Group (N=213)				
	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
36	9	0	12	15	63	3	13	11	3	70	1	2	9	14	74	4	5	11	11	69
37	5	12	11	21	52	3	5	5	13	74	4	2	12	20	62	4	6	10	18	62
38	2	0	6	20	72	5	3	6	8	78	2	2	7	27	60	3	2	7	19	69
39	0	2	14	14	71	2	5	7	13	74	0	4	12	15	69	10	3	11	14	71
40	25	14	8	15	38	19	5	8	11	57	9	12	9	22	48	17	11	8	17	48
41	3	6	23	26	42	8	6	10	10	66	6	2	16	16	59	6	5	16	17	56
42	11	2	24	20	44	8	6	11	13	61	5	5	11	23	56	8	4	15	19	54
43	3	3	8	24	62	8	2	10	8	73	2	5	6	27	59	4	3	8	21	64
44	2	12	17	29	41	6	6	5	11	71	0	6	16	25	53	2	8	13	22	55
45	5	8	15	24	48	6	2	16	11	65	2	4	19	19	57	4	4	17	18	57

Table 22

Grade 3
Work Values Inventory Questionnaire
Implementation Year 1 and 2
Means and Standard Deviations of Pupil Responses to Items by Implementation Level and for Total Group

Item Number	Low (N=122)		Medium (N=119)		High (N=158)		Total Group (N=454)	
	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.
1	3.83	1.45	4.40	1.10	3.93	1.24	4.07	1.28
2	4.25	1.12	4.25	1.33	4.50	.95	4.38	1.11
3	4.11	1.32	4.19	1.18	4.12	1.31	4.13	1.26
4	3.53	1.38	3.75	1.45	3.20	1.46	3.47	1.44
5	3.64	1.49	4.10	1.36	3.86	1.50	3.83	1.47
6	4.31	1.20	4.37	1.07	4.03	1.31	4.23	1.21
7	3.26	1.72	3.71	1.53	3.39	1.56	3.49	1.60
8	2.84	1.54	3.85	1.55	2.92	1.63	3.22	1.62
9	4.08	1.34	4.09	1.37	4.23	1.28	4.15	1.31
10	4.40	1.08	4.23	1.23	4.40	1.05	4.37	1.10
11	4.47	1.10	4.30	1.27	4.45	1.03	4.44	1.11
12	4.16	1.28	4.44	1.08	4.09	1.34	4.24	1.23
13	4.25	1.17	4.47	1.06	4.36	1.14	4.38	1.11
14	2.45	1.67	2.69	1.73	2.51	1.67	2.53	1.68
15	4.27	1.05	3.95	1.32	4.18	1.03	4.17	1.12
16	4.04	1.17	4.02	1.38	4.07	1.22	4.08	1.23
17	4.39	1.02	4.20	1.22	4.16	1.19	4.28	1.14
18	4.54	.95	4.34	1.53	4.38	1.06	4.44	1.05
19	4.28	1.09	4.46	1.05	4.18	1.13	4.31	1.09
20	4.25	1.14	4.25	1.27	4.56	.96	4.39	1.11
21	3.93	1.44	3.64	1.48	3.71	1.45	3.76	1.45
22	4.50	.95	4.55	1.04	4.58	1.05	4.55	1.01
23	4.52	.99	4.48	1.10	4.53	.92	4.53	.97
24	3.48	1.50	3.72	1.55	3.44	1.56	3.59	1.52
25	3.82	1.54	3.78	1.61	4.00	1.33	3.88	1.48
26	3.41	1.50	3.36	1.62	3.95	1.41	3.59	1.53
27	4.32	1.03	4.29	1.18	4.30	1.10	4.33	1.09
28	4.04	1.24	4.43	.94	4.23	1.08	4.24	1.10
29	3.58	1.47	3.81	1.38	3.37	1.53	3.60	1.46
30	4.51	.89	4.36	1.09	4.36	1.08	4.41	1.02
31	4.33	1.04	4.41	1.08	4.32	1.13	4.38	1.06
32	4.11	1.17	4.03	1.30	3.82	1.19	4.02	1.20
33	3.92	1.34	3.84	1.30	3.80	1.38	3.82	1.36
34	3.99	1.10	4.10	1.31	4.11	1.30	4.12	1.22
35	4.37	1.06	4.31	1.17	4.41	1.09	4.38	1.09

Table 22

Item Number	Low (N=122)		Medium (N=119)		High (N=158)		Total Group (N=454)	
	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.
36	4.40	1.12	4.34	1.14	4.49	1.00	4.44	1.07
37	4.06	1.24	4.28	1.22	4.04	1.30	4.16	1.24
38	4.50	.92	4.48	1.06	4.40	1.98	4.48	.97
39	4.58	.78	4.56	.87	4.53	.88	4.56	.85
40	3.49	1.57	3.60	1.62	3.47	1.50	3.59	1.55
41	3.84	1.28	4.12	1.35	4.03	1.33	4.01	1.30
42	4.04	1.21	4.12	1.32	4.19	1.19	4.13	1.23
43	4.40	.92	4.29	1.20	4.27	1.14	4.35	1.06
44	4.14	1.09	4.27	1.22	4.26	1.05	4.25	1.10
45	4.22	1.03	4.26	1.14	4.09	1.21	4.21	1.12

Table 23

Grade 3

Work Values Inventory Questionnaire

Implementation Year 1 and 2

Proportion of Pupils Endorsing Each Alternative on Each Item by Implementation Level and for Total Group

Item Number	Low (N=144)					Medium (N=119)					High (N=158)					Total Group (N=454)				
	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
1	13	8	13	15	50	4	4	9	11	71	4	13	16	20	47	7	8	12	16	56
2	4	6	8	22	59	8	7	7	7	71	3	3	6	18	70	5	5	7	16	68
3	7	11	8	14	61	4	8	11	17	59	10	3	10	19	58	7	7	10	18	58
4	12	14	20	20	35	13	10	13	18	46	19	14	21	19	27	14	13	19	19	35
5	14	12	16	12	46	11	4	13	11	61	13	10	9	13	55	13	8	13	12	53
6	7	4	6	16	67	3	7	9	14	68	8	9	10	18	55	6	7	9	16	63
7	30	8	9	14	40	16	9	11	16	48	21	8	20	12	39	21	8	13	14	43
8	31	13	21	13	22	15	10	10	8	58	32	13	11	17	26	25	11	14	14	35
9	10	4	14	12	60	12	3	9	17	59	9	3	11	12	66	10	3	12	13	62
10	4	4	9	13	70	8	4	7	20	61	4	4	7	18	67	5	4	7	17	67
11	5	4	5	11	75	10	0	8	12	69	4	1	10	14	71	6	2	7	12	73
12	9	5	8	19	59	4	5	8	10	73	11	4	10	17	58	8	4	8	16	64
13	7	3	8	23	59	3	5	7	9	75	6	3	10	12	69	5	4	8	15	69
14	51	7	11	9	22	45	7	9	13	26	49	8	8	15	21	49	7	9	13	22
15	4	3	11	26	56	8	9	15	17	51	3	4	18	23	52	5	5	14	22	54
16	5	6	20	20	50	9	9	8	16	57	8	5	10	28	50	7	7	12	22	53
17	1	7	11	13	68	7	4	11	17	60	6	6	12	19	57	5	5	11	16	63
18	3	4	3	16	74	3	9	8	10	70	4	4	8	18	66	3	5	6	14	71
19	3	9	6	22	60	4	3	9	12	72	4	6	11	23	55	4	6	8	19	63
20	5	4	12	19	60	9	4	7	15	66	3	4	4	12	77	5	4	7	14	69
21	14	4	10	18	53	15	8	17	17	43	15	6	17	19	44	14	6	15	19	46
22	2	3	11	12	72	4	4	3	8	80	5	3	3	7	82	4	3	6	9	79
23	4	1	6	14	74	6	3	2	15	74	3	2	6	18	71	4	2	4	15	74
24	18	8	19	17	37	18	5	14	14	50	21	10	12	20	37	18	8	15	18	42
25	17	6	9	14	54	18	7	10	8	57	9	6	11	20	53	15	6	10	15	54
26	22	3	18	26	31	24	7	16	15	38	14	4	9	21	52	19	5	14	20	41
27	4	4	8	26	59	6	4	10	15	65	4	4	11	18	62	5	4	9	19	63
28	7	6	14	21	51	3	2	11	19	66	3	6	12	22	57	4	5	12	21	28
29	16	9	16	19	40	10	7	23	11	49	21	7	18	20	33	16	7	18	19	40
30	2	3	5	22	68	2	9	9	11	69	4	6	6	20	65	3	6	7	17	67
31	4	3	13	18	62	4	4	9	14	70	6	3	11	16	65	4	3	10	16	67
32	6	6	7	32	49	8	5	20	10	57	7	7	17	34	35	7	6	14	26	47
33	9	9	11	22	49	8	9	18	21	44	9	13	11	21	46	10	10	13	21	45
34	3	9	17	29	42	8	6	12	14	59	10	5	6	24	56	7	6	11	22	55
35	4	4	9	17	66	3	9	9	8	69	4	6	7	12	71	3	6	9	12	69

Table 23 continued

Item Number	Low (N=144)					Medium (N=119)					High (N=158)					Total Group (N=454)				
	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
36	6	2	6	16	70	3	9	12	6	71	3	4	7	13	73	4	4	7	12	72
37	7	6	13	21	53	7	5	7	15	66	9	5	13	18	55	7	5	11	18	59
38	4	1	4	23	68	4	4	5	12	74	3	3	7	23	63	3	3	5	19	68
39	0	1	9	16	72	0	4	10	11	75	1	3	9	14	72	1	3	9	14	73
40	21	9	12	19	40	21	7	10	14	48	17	13	10	26	35	19	9	10	20	43
41	9	5	20	24	42	9	5	12	10	63	9	7	12	16	56	9	5	15	18	53
42	7	3	19	21	50	9	6	12	12	62	6	4	12	20	58	7	5	14	17	57
43	1	4	8	25	61	8	2	10	15	65	5	5	8	21	61	4	4	9	20	64
44	2	9	13	25	51	6	7	8	14	66	3	6	13	21	58	3	7	11	20	59
45	3	4	15	25	54	4	3	18	10	64	6	4	17	19	54	5	4	16	18	58

Fifth-Grade Results

A. Fifth-Grade Teachers

1. Fifth-Grade Experimental versus Fifth-Grade Comparison Teachers. Only the *Teacher Career Education Participation Form* was given to both Experimental and Comparison Teachers. Table 24 shows the results of the analyses of variance for the Experimental and Comparison Teachers on the 27 items of the *Teacher Career Education Participation Form*.

a. Experimental Teachers scored higher than Comparison Teachers on 15 of the 27 items. Comparison Teachers scored higher on 12. (Chi-Square = 0.15; $P = 0.70$). Comparisons utilized the mean scores of the groups.

b. A $P < .20$ was found on 3 items (Numbers 1, 3, 5) with each difference between the group means in favor of the Experimental Teachers.

c. A $P < .20$ was found on 5 items (Numbers 13, 14, 15, 16, 25) with each difference in favor of the Comparison Teachers.

2. Fifth-Grade Experimental Teachers. Tables 25-28 show results of frequency distributions for both the *Teacher Career Education Participation Form* and *Career Education Objectives (Teacher Form)*. Means, standard deviations and proportions of teachers endorsing each alternative for each item are listed for Implementation Year 1 and Implementation Year 2, where implementation levels Low, Medium, and High are grouped together. Tables 25 and 26 show the results of the *Teacher Career Education Participation Form*, while Tables 27 and 28 show results of the *Career Education Objectives Questionnaire*.

Group Ns were considered to be too small to perform analyses of variance for Implementation Year. However, a comparison of the groups for the two measures indicate that Implementation Year 2 scored higher (i.e., a higher mean score) than Implementation Year 1 on 11 of the 27 items of the *Teacher Career Education Participation Form*. Implementation Year 1 scored higher on 8. Group means were tied on 8 items (Chi-Square = 0.15; $P = 0.70$). Implementation Year 2 scored higher than Year 1 on one of the 36 items on the *Career Education Objectives Questionnaire*. Implementation Year 1 scored higher on 31. Group means were tied on 4 items (Chi-Square = 23.36; $P < 0.01$).

Table 24

Grade 5
Analyses of Variance
Experimental vs. Comparison Teachers
Teacher Career Education Participation Form

Item Number	F Value	Probability	Experimental Teachers Mean (N = 18)	Comparison Teachers Mean (N = 32)	Which Group Scored Higher
1	1.76	0.19*	2.94	2.70	Experimental
2	0.49	0.50	2.89	2.74	Experimental
3	6.02	0.02*	3.28	2.76	Experimental
4	0.23	0.64	1.72	1.85	Comparison
5	2.57	0.11*	3.22	2.91	Experimental
6	0.63	0.44	3.24	3.09	Experimental
7	0.39	0.54	3.06	2.91	Experimental
8	0.00	1.00	2.67	2.67	Tie
9	0.07	0.79	2.78	2.73	Experimental
10	0.19	0.67	2.89	2.82	Experimental
11	0.25	0.63	3.17	3.09	Experimental
12	0.01	0.93	2.89	2.91	Comparison
13	6.68	0.12*	2.28	2.76	Comparison
14	5.02	0.03*	2.22	2.67	Comparison
15	2.91	0.09*	2.00	2.34	Comparison
16	2.18	0.14*	3.11	2.85	Experimental
17	0.99	0.33	3.39	3.24	Experimental
18	0.00	0.95	3.11	3.12	Comparison
19	0.04	0.84	3.00	2.97	Experimental
20	0.27	0.61	1.94	2.06	Comparison
21	0.86	0.36	2.72	2.50	Experimental
22	0.61	0.44	2.89	2.73	Experimental
23	0.03	0.86	2.72	2.76	Comparison
24	0.80	0.38	2.50	2.57	Comparison
25	4.00	0.05*	2.89	3.24	Comparison
26	0.03	0.87	1.89	1.94	Comparison
27	0.14	0.71	2.17	2.06	Experimental

*Statistically significant difference ($P \leq .20$) was observed between the means of the two groups.

Table 25

Grade 5

Experimental Group. Teacher Career Education Participation Form
Implementation Year 1, All Implementation Levels
Means and Standard Deviations and Proportion of
Teachers Endorsing Each Alternative for Each Item
(N=9)

Item Number	Mean	S.D.	1	2	3	4
1	3.00	0.87	0	33	33	33
2	2.89	1.05	11	22	33	33
3	3.11	0.78	0	22	44	33
4	1.78	0.83	44	33	22	0
5	2.88	0.93	0	44	22	33
6	3.22	0.83	0	22	33	44
7	2.89	0.00	0	33	44	22
8	2.67	0.87	0	56	22	22
9	2.67	0.71	0	22	67	94
10	3.11	0.60	0	11	67	22
11	3.11	0.60	0	11	67	22
12	2.89	0.78	0	33	44	22
13	2.33	0.87	22	22	56	0
14	2.22	0.67	11	56	33	0
15	1.75	0.46	25	75	0	0
16	3.11	0.78	0	22	44	33
17	3.33	0.50	0	0	67	33
18	3.11	0.60	0	11	67	22
19	3.00	0.71	0	22	56	22
20	2.00	0.76	25	50	25	0
21	2.78	0.97	11	22	44	22
22	2.89	0.78	0	33	44	22
23	2.89	0.60	0	22	67	11
24	2.56	0.72	0	56	33	11
25	2.67	0.71	0	44	44	11
26	1.78	0.83	44	33	22	0
27	2.11	1.05	17	33	22	11

Table 26

Grade 5

Experimental Group, *Teacher Career Education Participation Form*
Implementation Year 2, All Implementation Levels
Means and Standard Deviations and Proportion of
Teachers Endorsing Each Alternative for Each Item
(N=9)

Item Number	Mean	S.D.	1	2	3	4
1	2.89	0.78	0	33	44	22
2	2.89	0.78	0	33	44	22
3	3.44	0.73	0	11	33	56
4	1.67	0.87	56	22	22	0
5	3.56	0.53	0	0	44	56
6	3.25	0.46	0	0	75	25
7	3.22	0.67	0	11	56	33
8	2.67	0.71	0	44	44	11
9	2.89	0.60	0	22	67	11
10	2.67	0.50	0	33	67	0
11	3.22	0.44	0	0	78	22
12	2.89	0.78	0	33	44	22
13	2.22	0.44	0	78	22	0
14	2.22	0.67	11	56	33	0
15	2.22	0.67	11	56	33	0
16	3.11	0.93	0	33	22	44
17	3.44	0.53	0	0	56	44
18	3.11	0.60	0	11	67	22
19	3.00	0.50	0	11	78	11
20	1.88	0.83	37	37	25	0
21	2.67	0.87	0	56	22	22
22	2.89	0.60	0	22	67	11
23	2.56	0.88	11	33	44	11
24	2.44	0.53	0	56	44	0
25	3.11	0.33	0	0	89	11
26	2.00	1.12	44	22	22	11
27	2.22	1.09	33	22	33	11

Table 27

Grade 5

Experimental Group. Teacher Career Education Objectives Implementation Year 1, All Implementation Levels Means and Standard Deviations and Proportion of Teachers Endorsing Each Alternative for Each Item (N=9)

Item Number	Mean	S.D.	1	2	3	4
1	2.67	1.00	11	33	33	22
2	3.00	1.12	11	22	22	44
3	3.11	0.60	0	11	67	22
4	2.67	1.12	22	11	44	22
5	2.33	1.12	33	11	44	11
6	2.78	1.09	11	33	22	33
7	2.67	1.00	11	33	33	22
8	2.89	0.78	0	33	44	22
9	2.89	0.89	0	33	44	22
10	2.78	0.97	11	22	44	22
11	2.38	1.19	25	37	13	25
12	2.89	1.05	11	22	33	33
13	2.44	1.24	22	44	0	33
14	2.56	1.13	11	56	0	33
15	2.44	0.73	11	33	56	0
16	2.33	0.87	11	56	22	11
17	2:00	0.71	22	56	22	0
18	1.89	0.78	33	44	22	0
19	2.44	1.01	22	22	44	11
20	2.22	0.97	22	44	22	11

Table 27 continued

Item Number	Mean	S.D.	1	2	3	4
21	2.11	0.93	22	56	11	11
22	2.22	0.83	11	67	11	11
23	2.00	1.00	33	44	11	11
24	2.22	0.97	22	44	22	11
25	2.00	1.00	33	44	11	11
26	2.44	0.88	11	44	33	11
27	2.78	0.83	11	11	67	11
28	2.33	0.87	11	56	22	11
29	2.33	1.00	22	33	33	11
30	2.44	1.13	22	33	22	22
31	2.44	0.88	22	11	67	0
32	1.67	0.71	44	44	11	0
33	1.78	0.83	44	33	22	0
34	2.22	0.67	11	56	33	0
35	1.89	0.78	33	44	22	0
36	2.22	1.09	33	22	33	11

Table 28

Grade 5

Experimental Group. Career Education Objectives (Teacher Form)
Implementation Year 2, All Implementation Levels
Means and Standard Deviations and Proportion of
Teachers Endorsing Each Alternative for Each Item
(N=9)

Item Number	Mean	S.D.	1	2	3	4
1	2.44	0.73	0	67	22	11
2	2.67	1.00	11	33	33	22
3	2.44	0.53	0	56	44	0
4	2.44	1.01	22	22	44	11
5	2.44	1.01	22	22	44	11
6	2.67	0.87	11	22	56	11
7	2.12	0.99	25	50	13	13
8	2.77	0.44	0	22	78	0
9	2.44	0.73	0	67	22	11
10	2.22	0.67	11	56	33	0
11	2.00	0.71	22	56	22	0
12	2.11	0.78	22	44	33	0
13	2.22	0.67	0	89	0	11
14	2.33	0.86	11	56	22	11
15	1.89	0.78	33	44	22	0
16	2.33	1.00	22	33	33	11
17	1.67	1.00	56	33	0	11
18	1.67	1.00	56	33	0	11
19	1.89	1.05	44	33	11	11
20	1.89	0.78	33	44	22	0

Table 28 continued

Item Number	Mean	S.D.	1	2	3	4
21	2.11	0.78	22	44	33	0
22	1.67	0.86	56	22	22	0
23	1.67	0.71	44	44	11	0
24	1.78	1.09	56	22	11	11
25	1.67	1.00	56	33	0	11
26	2.11	0.93	22	56	11	11
27	2.22	0.97	22	44	22	11
28	2.00	0.71	22	56	22	0
29	2.00	0.71	22	56	22	0
30	2.22	0.83	22	33	44	0
31	2.44	0.88	11	44	33	11
32	1.67	0.87	56	22	22	0
33	1.56	1.01	67	22	0	11
34	1.88	1.13	50	25	13	13
35	1.62	0.52	37	63	0	0
36	1.75	0.71	37	50	13	0

B. Fifth-Grade Pupils

1. Career Education Objectives Questionnaire (Student: Elementary). Table 29 shows the results of the analyses of variance for fifth-grade pupils for Implementation Year, Implementation Level, and Interaction of Implementation Year and Implementation Level.

a. Second year pupils scored higher on 25 of the 34 items. First year pupils scored higher on 9. (Chi-Square = 6.62; P = .01).

b. A significant difference for Implementation Year ($P \leq .20$) was found on 16 of the 34 items.

(1) A $P \leq .20$ was found on 16 items (Numbers 3, 6, 7, 9, 10, 11, 12, 13, 14, 15, 17, 19, 22, 31, 33, 34) in favor of the second year pupils.

(2) There were no significant items in favor of first year pupils.

c. A significant P value of .20 or less in Implementation Level was found for 18 items out of the 34 items.

(1) High Implementation Level pupils scored highest on 11 of these items (Numbers 1, 3, 4, 8, 9, 15, 17, 21, 26, 29, 20).

(2) Medium Implementation Level pupils scored highest on 5 of these items (Numbers 2, 24, 32, 33, 34).

(3) Low Implementation Level pupils scored highest on 2 of these items (Numbers 19, 22).

d. The Interaction of Implementation Year and Implementation Level was found to be significant ($P \leq .20$) for 17 of the 27 items (Numbers 1, 2, 5, 6, 8, 10, 12, 17, 19, 20, 21, 22, 23, 24, 27, 28, 32).

e. Tables 30 and 31 are summary tables which show how many times each group attained a certain rank for Implementation Year by Implementation Level and for Implementation Level. Table 30 summarizes column 7 of Table 29 and Table 31 summarizes column 5 of Table 29 in the same manner as explained for Tables 6, 7, and 8 (Third Grade Pupils, Career Education Objectives Questionnaire).

f. Tables 32, 34, and 36 show means and standard deviations of pupil responses to items by Implementation Level and for the total group for Implementation Year 1, Implementation Year 2, and for Implementation Year 1 and 2 taken together.

g. Proportions of pupils endorsing each alternative for each item by Implementation Level and for the total group for Implementation Year 1, Implementation Year 2 and Implementation Year 1 and 2 taken together are presented in Tables 33, 35, and 37.

Table 29

Grade 5
Analyses of Variance
A Comparison of Implementation Years and Implementation Levels for
Career Objectives Questionnaire (Student Form: Elementary)

Item Number	Comparison of Implementation Years (A)		Which Year Higher	Comparison of Implementation Levels (B)		Descending Order of Levels^3	Probability AxB^2	Rank Order of Groups^1 1 2 3 4 5 6
	F	P		F	P			
1	1.33	0.25	1	6.12	0.00*	H-M-L	0.07*	5-4-1-6-2-3
2	0.16	0.69	2	5.46	0.00*	M-H-L	0.04*	4-3-5-6-1-2
3	2.35	0.12*	2	2.25	0.10*	H-M-L	0.28	6-5-2-4-3-1
4	1.15	0.28	2	12.09	0.00*	H-M-L-	0.54	6-4-2-5-1-3
5	0.00	0.99	2	1.36	0.26	L-M-H	0.07*	3.5-3.5-2-1-5-6
6	2.48	0.11*	2	0.33	0.73	M-H-L	0.10*	5-6-3-4-1-2
7	3.22	0.07*	2	0.50	0.61	M-H-L	0.54	5-4-6-3-1-2
8	0.01	0.90	1	2.10	0.12*	H-L-M	0.00*	6-5-1-2-3-4
9	4.32	0.04*	2	5.55	0.00*	H-M-L	0.47	6-5-3-4-2-1
10	20.73	0.00*	2	0.62	0.54	L-M-H	0.01*	5-6-4-2-1-3
11	1.77	0.18*	2	0.98	0.38	H-M-L	0.78	6-5-3-4-2-1
12	4.25	0.04*	2	1.42	0.24	H-L-M	0.00*	5-6-1-2-3-4
13	4.75	0.03*	2	0.08	0.92	L-H-M	0.30	5-6-4-2-1-3
14	3.73	0.05*	2	0.68	0.51	L-M-H	0.48	5-4-6-1-3-2
15	3.80	0.05*	2	2.45	0.09*	H-M-L	0.22	5-6-2-4-1-3
16	0.76	0.39	2	0.72	0.49	H-(M=L)	0.46	4-6-3-5-2-1
17	6.33	0.01*	2	2.06	0.13*	H-M-L	0.84	6-5-3-4-2-1
18	1.17	0.28	2	0.03	0.97	M-H-L	0.00*	4-5-2-3-1-6
19	4.32	0.04*	2	2.45	0.09*	L-H-M	0.06*	3-6-5-1-2-4
20	0.33	0.57	2	0.29	0.75	L-M-H	0.01*	3-6-2-4-1-5
21	0.52	0.48	1	1.90	0.15*	H-M-L	0.08*	6-3-1-5-2-4
22	11.25	0.00*	2	1.96	0.14*	L-H-M	0.02*	5-6-3-1-2-4
23	0.03	0.85	2	1.28	0.28	M-H-L	0.01*	6-4-1-3-2-5
24	0.27	0.61	1	2.54	0.08*	M-H-L	0.14*	4-1-5-6-3-2
25	0.23	0.64	2	0.59	0.56	M-L-H	0.30	3-5-4-2-1-6
26	0.23	0.64	1	3.69	0.03*	H-L-M	0.29	2-5-3-4-6-1
27	0.00	0.98	1	0.17	0.85	M-L-H	0.04*	1-5-4-6-2-3
28	0.64	0.43	1	0.25	0.78	L-M-H	0.00*	2-6-3-4-1-5
29	0.04	0.85	2	3.19	0.04*	H-M-L	0.24	5-6-1-4-3-2
30	0.03	0.87	1	10.72	0.00*	H-M-L	0.45	5-4-1-6-3-2

Table 29 continued

Item Number	Comparison of Implementation Years (A)		Which Year Higher	Comparison of Implementation Levels (B)		Descending Order of Levels[3]	Probability AxB[2]	Rank Order of Groups[1] 1 2 3 4 5 6
	F	P		F	P			
31	1.64	0.20*	2	0.29	0.75	H-M-L	0.70	5-6-3-4-1-2
32	0.06	0.80	1	4.21	0.02*	M-H-L	0.05*	6-3-1-4-2-5
33	2.67	0.10*	2	7.38	0.00*	M-H-L	0.67	6-3-4-5-1-2
34	8.32	0.00*	2	12.02	0.00*	M-H-L	0.25	6-4-3-5-1-2

[1] Groups in order in which reported:

1 = Implementation year 1, implementation level 1 (Low)
2 = Implementation year 1, implementation level 2 (Medium)
3 = Implementation year 1, implementation level 3 (High)
4 = Implementation year 2, implementation level 1 (Low)
5 = Implementation year 2, implementation level 2 (Medium)
6 = Implementation year 2, implementation level 3 (High

[2] AxB: Interaction between Years of Implementation (A) and Levels of Implementation (B)

[3] L = Low Implementation Level
M = Medium Implementation Level
H = High Implementation Level

*Statistically significant difference ($P \leq .20$) was observed between the means of the two groups.

Table 30

Grade 5

Career Education Objectives Questionnaire (Student Form: Elementary)

How Many Times Any Group Ranked from Highest to Lowest

Group \ Rank Order	1 Highest	2	3	4	5	6 Lowest
IY1, IL1	1	2	3	5	12	11
IY1, IL2	1	0	5	7	9	12
IY1, IL3	8	6	10	5	3	2
IY2, IL1	4	5	3	12	5	5
IY2, IL2	14	11	7	0	1	1
IY2, IL3	6	10	6	5	4	3

IY=Implementation Year

IL=Implementation Level

1=Low
2=Medium
3=High

Table 31

Grade 5

Career Education Objectives Questionnaire (Student Form: Elementary)

How Many Times Any Group Ranked 1st, 2nd, or 3rd

	1	2	3
Lo	8	5	21
Med	11	17	6
Hi	15	12	7

Table 37

Grade 5

Career Education Objectives Questionnaire

Implementation Year 1

Means and Standard Deviations of Pupil Responses to Items

by Implementation Level and for Total Group

Item Number	Low (N=83)		Medium (N=83)		High (N=86)		Total Group (N=252)	
	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.
1	2.60	.52	2.61	.49	2.81	.45	2.68	.49
2	2.83	.52	2.89	.36	2.82	.47	2.84	.45
3	2.50	.73	2.68	.55	2.73	.52	2.64	.61
4	2.51	.70	2.76	.51	2.82	.45	2.70	.57
5	2.54	.64	2.54	.67	2.60	.64	2.56	.65
6	2.84	.46	2.79	.54	2.87	.34	2.83	.45
7	2.92	.31	2.93	.31	2.92	.32	2.92	.31
8	2.40	.61	2.44	.59	2.73	.52	2.53	.59
9	2.55	.61	2.67	.55	2.81	.45	2.68	.55
10	2.44	.55	2.33	.59	2.48	.50	2.42	.55
11	2.41	.74	2.43	.69	2.49	.69	2.44	.70
12	2.43	.63	2.32	.61	2.69	.56	2.48	.62
13	2.8[illegible]	.40	2.81	.51	2.89	.39	2.86	.43
14	2.86	.47	2.88	.37	2.79	.54	2.84	.47
15	2.10	.76	2.08	.73	2.35	.75	2.10	.75
16	[illegible].80	.51	2.74	.52	2.85	.42	2.80	.49
17	2.73	.57	2.76	.53	2.82	.42	2.77	.51
18	2.54	.67	2.53	.59	2.76	.51	2.61	.60
19	2.69	.56	2.43	.57	2.60	.58	2.57	.58
20	2.63	.56	2.44	.76	2.64	.61	2.57	.65
21	2.20	.76	2.31	.84	2.55	.67	2.36	.77
22	2.23	.78	2.05	.71	2.27	.70	2.19	.73
23	2.33	.65	2.36	.66	2.57	.55	2.42	.63
24	2.[illegible]	.54	2.78	.50	2.66	.55	2.71	.53
25	2.75	.46	2.73	.50	2.75	.49	2.74	.48
26	2.91	.33	2.81	.51	2.89	.35	2.87	.40
27	2.91	.33	2.80	.43	2.81	.45	2.84	.41
28	2.40	.67	1.89	.84	2.32	.77	2.20	.79
29	2.01	.75	2.01	.77	2.32	.75	2.12	.77
30	1.99	.77	2.16	.74	2.34	.71	2.16	.75
31	2.85	.42	2.82	.50	2.87	.40	2.85	.44
32	2.49	.75	2.73	.59	2.79	.49	2.67	.63
33	2.52	.68	2.75	.49	2.75	.56	2.67	.59
34	2.15	.86	2.40	.77	2.49	.67	2.35	.78

Table 33

Grade 5
Career Education Objectives Questionnaire
Implementation Year 1
Proportion of Pupils Endorsing Each Alternative
on Each Item by Implementation Level and for Total Group

Item Number	Low (N=83)			Medium (N=83)			High (N=86)			Total Group (N=252)		
	1	2	3	1	2	3	1	2	3	1	2	3
1	1	37	62	0	39	61	2	14	83	1	30	69
2	6	5	89	1	9	90	4	11	86	4	8	88
3	14	22	64	4	25	71	4	19	77	7	22	71
4	11	27	62	4	16	80	2	13	84	6	19	76
5	7	31	61	10	26	64	8	24	68	9	27	64
6	4	9	88	6	9	85	0	13	87	3	10	86
7	1	5	94	1	5	94	1	6	93	1	5	93
8	6	47	46	5	46	49	4	19	77	5	37	58
9	6	32	61	4	25	71	2	14	83	4	24	72
10	2	51	46	6	55	39	0	52	48	3	53	44
11	15	29	56	11	35	54	11	30	60	12	31	57
12	7	42	50	8	53	39	5	22	73	7	39	55
13	2	7	90	5	9	86	2	6	91	3	7	89
14	5	4	91	1	10	89	6	10	85	4	8	88
15	24	42	34	23	47	30	17	32	51	21	40	39
16	5	10	85	4	19	77	2	11	87	4	13	83
17	6	15	79	5	14	81	1	15	83	4	15	81
18	10	26	64	5	37	57	4	17	80	6	27	67
19	5	21	74	4	49	47	5	30	65	5	33	62
20	4	30	66	16	23	61	7	21	71	9	25	66
21	20	39	41	24	21	55	10	26	65	18	29	54
22	21	35	44	23	49	28	14	44	42	19	43	38
23	10	47	42	10	44	46	2	38	60	7	43	50
24	4	22	74	4	15	81	4	27	70	4	21	75
25	1	22	76	2	22	75	2	20	77	2	22	76
26	1	6	92	5	9	86	1	8	90	2	8	90
27	1	6	92	1	17	81	2	14	83	2	13	86
28	10	40	50	41	29	30	18	32	50	23	33	43
29	27	44	29	29	41	30	17	35	49	24	40	36
30	30	41	29	20	44	36	13	40	47	21	42	37
31	2	10	88	5	8	87	2	8	89	3	9	88
32	15	21	64	7	13	80	4	14	82	9	16	75
33	10	28	62	2	20	77	6	13	81	6	20	74
34	30	25	45	17	25	57	10	32	58	19	27	54

Table 34

Grade 5
Career Education Objectives Questionnaire
Implementation Year 2
Means and Standard Deviations of Pupil Responses to Items by Implementation Level and for Total Group

Item Number	Low (N=63)		Medium (N=87)		High (N=69)		Total Group (N=219)	
	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.
1	2.46	.69	2.71	.48	2.68	.47	2.63	.55
2	2.70	.57	2.95	.22	2.93	.26	2.87	.37
3	2.70	.60	2.72	.51	2.74	.44	2.72	.51
4	2.60	.56	2.85	.36	2.79	.44	2.76	.46
5	2.72	.56	2.53	.70	2.42	.72	2.55	.67
6	2.84	.45	2.96	.19	2.87	.34	2.90	.33
7	2.93	.32	2.99	.11	2.99	.12	2.97	.20
8	2.59	.60	2.50	.57	2.46	.58	2.51	.58
9	2.69	.60	2.81	.39	2.82	.38	2.78	.46
10	2.69	.57	2.74	.49	2.51	.50	2.65	.53
11	2.44	.76	2.56	.59	2.58	.55	2.53	.63
12	2.68	.57	2.62	.51	2.46	.56	2.59	.55
13	2.93	.32	2.96	.19	2.91	.29	2.94	.26
14	2.95	.23	2.88	.39	2.91	.28	2.91	.32
15	2.23	.73	2.35	.58	2.33	.63	2.31	.64
16	2.79	.53	2.85	.39	2.86	.35	2.84	.42
17	2.81	.40	2.91	.30	2.91	.28	2.88	.33
18	2.72	.49	2.77	.43	2.51	.66	2.67	.54
19	2.73	.45	2.72	.51	2.60	.63	2.68	.54
20	2.61	.62	2.73	.52	2.48	.66	2.61	.61
21	2.26	.78	2.38	.82	2.26	.78	2.31	.79
22	2.56	.63	2.44	.71	2.23	.75	2.40	.71
23	2.40	.59	2.56	.55	2.33	.61	2.44	.59
24	2.55	.65	2.75	.44	2.75	.47	2.70	.52
25	2.75	.51	2.84	.37	2.70	.49	2.77	.46
26	2.83	.46	2.78	.52	2.96	.21	2.85	.43
27	2.78	.53	2.90	.34	2.84	.41	2.85	.42
28	2.02	.88	2.43	.67	1.99	.83	2.17	.81
29	2.05	.74	2.16	.75	2.17	.80	2.14	.76
30	1.89	.73	2.27	.65	2.29	.71	2.17	.71
31	2.86	.44	2.91	.32	2.91	.28	2.90	.35
32	2.60	.70	2.78	.50	2.57	.68	2.66	.62
33	2.64	.61	2.86	.38	2.77	.49	2.77	.50
34	2.27	.85	2.75	.44	2.59	.55	2.57	.64

Table 35

Grade 5
Career Education Objectives Questionnaire
Implementation Year 2
Proportion of Pupils Endorsing Each Alternative
on Each Item by Implementation Level and for Total Group

Item Number	Low (N=63)			Medium (N=87)			High (N=69)			Total Group (N=219)		
	1	2	3	1	2	3	1	2	3	1	2	3
1	11	32	57	1	26	72	0	32	68	3	30	67
2	5	19	75	0	5	95	0	7	93	1	10	89
3	7	16	77	2	23	74	0	26	74	3	22	75
4	4	33	63	0	15	85	1	18	81	1	21	78
5	5	18	77	11	24	65	13	32	55	10	25	65
6	4	9	88	0	4	96	0	13	87	0	8	91
7	2	4	95	0	1	99	0	1	99	0	2	98
8	5	30	64	4	42	54	4	45	51	4	40	56
9	7	16	76	0	19	81	0	18	82	2	18	80
10	5	21	74	2	21	77	0	49	51	2	30	67
11	16	25	60	5	34	61	3	36	61	7	32	61
12	5	21	74	1	35	63	3	48	49	3	36	61
13	2	3	95	0	4	96	0	9	91	0	5	94
14	0	5	95	2	6	91	0	9	91	0	7	92
15	18	42	40	5	55	40	9	49	42	10	50	41
16	5	11	84	1	12	86	0	14	86	2	13	86
17	0	19	81	0	10	90	0	9	91	0	12	88
18	2	25	74	0	23	77	9	31	60	3	26	70
19	0	27	73	2	23	74	7	25	68	3	25	72
20	7	25	68	4	20	77	9	35	57	6	26	67
21	20	33	46	21	20	59	20	33	46	21	28	51
22	7	29	64	12	31	57	19	39	42	13	33	54
23	5	50	45	2	39	59	7	52	41	5	46	49
24	9	28	64	0	25	75	1	22	77	3	25	72
25	4	18	79	0	16	84	1	28	71	1	20	78
26	3	10	86	5	12	83	0	4	96	3	9	88
27	5	12	83	1	7	91	1	13	86	2	11	87
28	37	25	39	10	37	52	35	32	33	26	32	42
29	25	46	30	21	42	37	25	33	42	23	40	37
30	32	46	21	11	51	38	14	42	43	18	47	35
31	3	7	90	1	6	93	0	9	91	1	7	91
32	12	16	72	4	15	81	10	22	68	8	17	74
33	7	22	71	1	11	88	3	17	80	3	16	80
34	25	22	53	0	25	75	3	35	62	8	27	65

Table 36

Grade 5

Career Education Objectives Questionnaire

Implementation Year 1 and 2

Means and Standard Deviations of Pupil Responses

To Items by Implementation Level and for Total Group

Item Number	Low (N=146)		Medium (N=170)		High (N=155)		Total (N=471)	
	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.
1	2.55	.60	2.66	.49	2.75	.46	2.66	.52
2	2.77	.54	2.91	.30	2.88	.39	2.86	.42
3	2.58	.68	2.69	.52	2.74	.48	2.68	.57
4	2.54	.64	2.81	.44	2.81	.44	2.73	.52
5	2.61	.61	2.53	.68	2.52	.68	2.55	.66
6	2.84	.46	2.88	.41	2.87	.34	2.86	.40
7	2.93	.31	2.95	.23	2.95	.25	2.94	.27
8	2.48	.46	2.47	.58	2.61	.56	2.52	.59
9	2.61	.61	2.74	.48	2.81	.42	2.73	.51
10	2.54	.57	2.53	.58	2.49	.50	2.52	.55
11	2.42	.74	2.49	.64	2.53	.63	2.48	.67
12	2.53	.62	2.47	.58	2.59	.57	2.53	.59
13	2.90	.37	2.89	.39	2.90	.34	2.90	.37
14	2.90	.39	2.88	.38	2.84	.45	2.87	.41
15	2.15	.75	2.21	.67	2.34	.70	2.24	.71
16	2.80	.52	2.80	.46	2.85	.39	2.81	.46
17	2.76	.51	2.83	.44	2.86	.36	2.82	.44
18	2.61	.61	2.65	.53	2.65	.59	2.64	.57
19	2.71	.52	2.58	.56	2.60	.60	2.62	.56
20	2.62	.58	2.59	.67	2.57	.64	2.59	.63
21	2.23	.76	2.33	.82	2.42	.73	2.33	.78
22	2.36	.74	2.25	.74	2.25	.72	2.29	.73
23	2.36	.63	2.46	.61	2.46	.59	2.43	.61
24	2.64	.59	2.76	.47	2.70	.51	2.70	.53
25	2.75	.48	2.78	.44	2.73	.49	2.75	.47
26	2.88	.39	2.80	.51	2.92	.29	2.86	.41
27	2.90	.43	2.85	.39	2.82	.43	2.84	.42
28	2.24	.78	2.16	.81	2.17	.81	2.19	.80
29	2.03	.75	2.09	.76	2.25	.77	2.13	.77
30	1.95	.75	2.22	.70	2.32	.70	2.17	.73
31	2.86	.43	2.87	.42	2.89	.35	2.87	.40
32	2.54	.73	2.75	.55	2.69	.59	2.67	.63
33	2.57	.65	2.81	.44	2.76	.53	2.72	.55
34	2.20	.85	2.58	.65	2.54	.62	2.45	.72

Table 37

Grade 5

Career Education Objectives Questionnaire

Implementation Year 1 and 2

Proportion of Pupils Endorsing Each Item

By Implementation Level and for Total Group

Item Number	Low (N=146)			Medium (N=170)			High (N=155)			Total (N=471)		
	1	2	3	1	2	3	1	2	3	1	2	3
1	5	35	60	0	32	67	1	22	76	2	30	68
2	6	11	83	0	7	92	2	9	89	3	9	88
3	11	20	69	3	24	73	2	22	76	5	22	73
4	8	29	63	2	16	82	2	15	83	4	20	77
5	7	26	68	11	25	64	10	27	62	9	26	65
6	4	8	88	3	6	91	0	13	87	2	9	88
7	1	4	94	0	3	96	0	4	95	0	4	95
8	6	40	54	4	44	51	4	31	65	5	39	51
9	7	26	67	2	22	76	1	16	83	3	21	76
10	4	38	58	4	38	58	0	51	49	3	42	55
11	15	27	58	8	34	57	7	33	60	10	32	58
12	7	34	60	4	44	51	4	34	63	5	37	58
13	2	6	92	2	6	91	1	7	91	2	6	92
14	3	4	93	2	8	90	3	9	88	3	7	90
15	21	42	36	14	51	35	13	40	47	16	45	40
16	5	10		2	16	82	1	12	86	3	13	84
17	4	17	80	2	12	86	*	12	87	2	14	84
18	7	26	68	2	30	67	6	23	71	5	26	69
19	3	24	74	3	36	61	6	28	66	4	30	66
20	5	28	67	10	21	69	8	27	65	8	25	67
21	20	37	43	22	20	57	15	29	56	19	28	53
22	16	33	52	17	40	42	16	42	42	17	38	45
23	8	49	43	6	41	52	5	44	51	6	45	49
24	6	25	70	2	20	78	3	25	73	3	23	74
25	2	20	77	1	19	80	2	24	75	2	21	77
26	2	8	90	5	11	84	0	7	93	3	8	89
27	3	9	88	1	12	86	2	14	84	2	12	86
28	21	34	45	26	33	41	26	32	42	24	33	43
29	26	45	29	25	42	34	20	34	46	24	40	36
30	31	43	26	16	47	37	14	41	45	20	44	37
31	3	9	88	3	7	90	1	8	90	2	8	90
32	14	19	67	6	14	81	7	18	76	8	17	75
33	9	26	66	2	16	83	5	15	80	5	18	77
34	28	24	48	9	25	66	7	33	60	14	27	59

2. Work Values Inventory (Elementary Form). Table 38 shows the results of the analysis of variance for fifth-grade pupils for Implementation Year, Implementation Level and the Interaction of Implementation Year and Implementation Level.

a. Second year pupils scored higher on 39 of the 45 items. First year pupils scored higher on 6 of the items (Chi-Square = 20.00, $P < .01$).

b. A significant difference for Implementation Year was found on 30 of the 45 items.

(1) A $P \leq .20$ was found on 30 of the items (Numbers 1, 7, 8, 9, 11, 13, 15, 16, 17, 18, 21, 22, 23, 24, 25, 27, 29, 32, 33, 34, 35, 36, 37, 38, 40, 41, 42, 43, 44, 45) in favor of second year students.

(2) No significance was found for any of the items where first year pupils scored higher.

c. A significant P value of .20 or less in Implementation Level was found on 30 out of the 45 items.

(1) High Implementation Level pupils scored highest on 6 of these items (Numbers 4, 5, 10, 21, 35, 42).

(2) Medium Implementation Level pupils scored highest on 20 of these items (Numbers 2, 6, 8, 9, 11, 13, 15, 16, 17, 22, 25, 26, 27, 30, 31, 33, 34, 38, 43, 44).

(3) Low Implementation Level pupils scored highest on 4 of these items (Numbers 7, 14, 23, 39).

d. The Interaction of Implementation Year and Implementation Level was found to be significant ($P \leq .20$) for 38 of the 45 items (Numbers 1, 2, 4, 5, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 19, 20, 21, 22, 24, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 41, 42, 43, 44, 45).

e. Tables 39 and 40 are summary tables which show how many times each group ranked a certain way for Implementation Year by Implementation Level and for Implementation Level. Table 39 summarizes column 7 of Table 38 and Table 31 summarizes column 5 of Table 38 in the same manner as explained for Tables 6, 7, and 8 (Third Grade Pupils, Career Education Objectives Questionnaire).

f. Tables 41, 43 and 45 show means and standard deviations of pupil responses to items by Implementation Level and for the total group for Implementation Year 1, Implementation Year 2, and for Implementation Year 1 and 2 taken together.

g. Proportions of pupils endorsing each alternative for each item by Implementation Level and for the total group for Implementation Year 1, Implementation Year 2, and for Implementation Years 1 and 2 taken together are presented in Tables 42, 44, and 46.

Table 38

Grade 5

Analyses of Variance

A Comparison of Implementation Years and Implementation Levels for

Work Values Inventory (Elementary Form)

Item Number	Comparison of Implementation Years (A)		Which Year Higher	Comparison of Implementation Levels (B)		Descending Order of Levels³	Probability AxB²	Rank Order of Groups¹
	F	P		F	P			1 2 3 4 5 6
1	9.19	0.00*	2	1.30	0.27	M-L-H	0.00*	5-1-3-2-6-4
2	0.84	0.36	1	3.27	0.04*	M-H-L	0.00*	2-3-4-6-1-5
3	0.10	0.75	1	0.95	0.91	M-L-H	0.78	1-3-5-6-2-4
4	0.00	0.96	2	2.07	0.13*	H-M-L	0.00*	3-5-2-6-1-4
5	0.01	0.93	2	1.90	0.15*	H-M-L	0.17*	4-5-2-6-3-1
6	0.14	0.71	1	2.65	0.07*	M-H-L	0.35	4-2-3-5-1-5
7	2.19	0.14*	2	2.74	0.06*	L-M-H	0.01*	1-6-5-3-2-4
8	8.30	0.00*	2	14.75	0.00*	M-H-L	0.00*	5-3-4-6-1-2
9	3.93	0.05*	2	10.65	0.00*	M-H-L	0.00*	4-3-5-6-1-2
10	0.43	0.52	1	5.87	0.00*	H-M-L	0.01*	4-5-3-6-1-2
11	3.13	0.07*	2	3.34	0.03*	M-H-L	0.00*	6-4-3-2-1-5
12	0.00	0.95	1	1.24	0.29	H-M-L	0.00*	3-5-2-6-1-4
13	5.41	0.02*	2	1.64	0.19*	M-H-L	0.11*	6-5-3-4-1-2
14	0.56	0.46	2	6.68	0.00*	L-M-H	0.05*	3-5-6-4-2-1
15	3.65	0.05*	2	7.73	0.00*	M-L-H	0.00*	2-4-5-3-1-6
16	4.75	0.03*	2	2.21	0.11*	M-H-L	0.00*	5-6-2-3-1-4
17	3.05	0.08*	2	2.18	0.11*	M-H-L	0.02*	4-6-2-5-1-3
18	0.51	0.00*	2	0.25	0.78	L-M-H	0.22	4-6-5-2-1-3
19	0.17	0.69	2	0.05	0.95	H-M-L	0.01*	2-5-4-6-1-3
20	1.22	0.27	2	0.98	0.38	M-H-L	0.19*	3-4-5-6-1-2
21	2.39	0.12*	2	3.60	0.03*	H-M-L	0.00*	4-6-2-5-1-3
22	3.00	0.08*	2	2.05	0.13*	M-H-L	0.06*	4-5-3-6-1-2
23	3.30	0.07*	2	0.33	0.72	M-L-H	0.52	6-5-4-2-1-3
24	29.95	0.00*	2	10.84	0.00*	L-M-H	0.00*	3-6-5-1-2-4
25	4.93	0.03*	2	5.62	0.00*	M-L-H	0.33	3-4-6-2-1-5
26	0.74	0.39	2	2.53	0.08*	M-H-L	0.76	6-3.5-3.5-5-1-2
27	2.16	0.14*	2	5.25	0.01*	M-H-L	0.03*	5-4-3-6-1-2
28	0.83	0.37	2	1.45	0.23	M-H-L	0.01*	2-5-4-6-1-3
29	8.33	0.00*	2	1.28	0.28	M-L-H	0.00*	2-6-5-4-1-3
30	0.27	0.61	1	3.95	0.20*	M-H-L	0.02*	3-2-5-6-1-4

Table 38 continued

Item Number	Comparison of Implementation Years (A)		Which Year Higher	Comparison of Implementation Levels (B)		Descending Order of Levels[3]	Probability AxB[2]	Rank Order of Groups[1] 1 2 3 4 5 6
	F	P		F	P			
31	0.37	0.55	2	4.51	0.12*	M-H-L	0.05*	5-4-2-6-1-3
32	4.51	0.03*	2	0.00	0.99	M-H-L	0.00*	4-6-2-3-1-5
33	7.89	0.01*	2	5.83	0.00*	M-L-H	0.01*	3-4-6-5-1-2
34	7.01	0.01*	2	7.41	0.00*	M-H-L	0.05*	6-3-2-4-1-5
35	10.04	0.00*	2	1.84	0.16*	H-M-L	0.02*	5-6-3-4-1-2
36	2.54	0.11*	2	0.50	0.61	H-M-L	0.05*	4-6-3-5-1-2
37	5.28	0.02*	2	0.34	0.72	H-M-L	0.00*	2-6-1-4-5-3
38	2.85	0.09*	2	1.41	0.24	M-L-H	0.08*	3-6-4-2-1-5
39	0.82	0.37	2	3.00	0.02*	M-H-L	0.02*	4-3-5-6-1-2
40	15.04	0.00*	2	3.74	0.02*	L-H-M	0.98	4-6-5-1-3-2
41	11.19	0.00*	2	0.44	0.65	L-M-H	0.00*	2-6-4-3-1-5
42	10.78	0.00*	2	2.13	0.12*	H-L-M	0.00*	3-6-5-2-1-4
43	10.93	0.00*	2	3.60	0.03*	M-H-L	0.06*	4-6-5-2-1-3
44	9.08	0.00*	2	1.73	0.18*	M-H-L	0.01*	4-6-3-5-1-2
45	22.81	0.00*	2	1.02	0.36	H-M-L	0.04*	5-6-4-2-1-3

[1] Groups in order in which reported:

1 = Implementation year 1, implementation level 1 (Low)
2 = Implementation year 1, implementation level 2 (Medium)
3 = Implementation year 1, implementation level 3 (High)
4 = Implementation year 2, implementation level 1 (Low)
5 = Implementation year 2, implementation level 2 (Medium)
6 = Implementation year 2, implementation level 3 (High

[2] AxB: Interaction between Years of Implementation (A) and Levels of Implementation (B)

[3] L = Low Implementation Level
M = Medium Implementation Level
H = High Implementation Level

*Statistically significant difference ($P \leq .20$) was observed between the means of the two groups.

Table 39

Grade 5

Work Values Inventory (Elementary Form)

How Many Times Any Group Ranked from Highest to Lowest

Group \ Rank Order	1	2	3	4	5	6
	Highest					Lowest
IY1, IL1	2	7	10	14	7	5
IY1, IL2	1	2	7	7	10	18
IY1, IL3	1	9	10	9	13	3
IY2, IL1	2	9	5	6	6	17
IY2, IL2	37	4	2	0	1	1
IY2, IL3	2	14	11	9	8	1

IY=Implementation Year

IL=Implementation Level

1=Low
2=Medium
3=High

Table 40

Grade 5

Work Values Inventory (Elementary Form)

How Many Times an Implementation Level Ranked 1st, 2nd or 3rd

	1	2	3
Lo	6	9	30
Med	28	15	2
Hi	11	21	13

Table 41

Grade 5

Work Values Inventory Questionnaire

Implementation Year 1

Means and Standard Deviations of Pupil Responses to Items

by Implementation Level and for Total Group

Item Number	Low (N=83)		Medium (N=83)		High (N=86)		Total Group (N=252)	
	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.
1	3.94	1.06	3.70	1.55	3.23	1.42	3.62	1.39
2	4.57	.76	4.47	1.10	4.44	1.07	4.49	.99
3	4.22	1.14	4.19	1.09	4.11	1.22	4.17	1.15
4	3.55	1.38	2.98	1.53	3.80	1.34	3.44	1.45
5	3.94	1.33	3.65	1.58	4.06	1.25	3.88	1.40
6	4.14	1.08	4.26	1.22	4.19	1.21	4.20	1.13
7	3.47	1.56	2.52	1.77	2.68	1.56	2.88	1.68
8	2.68	1.56	2.90	1.63	2.86	1.50	2.82	1.56
9	4.32	1.12	4.52	.95	4.09	1.29	4.31	1.14
10	4.35	1.08	4.35	1.12	4.40	1.07	4.36	1.09
11	4.08	1.22	4.39	.98	4.49	.91	4.32	1.05
12	4.30	.95	4.09	1.23	4.46	.94	4.29	1.05
13	4.23	1.23	4.24	1.10	4.42	1.09	4.30	1.14
14	2.60	1.67	2.11	1.37	1.93	1.25	2.21	1.46
15	4.06	1.09	3.93	1.23	3.77	1.18	3.92	1.17
16	3.60	1.37	3.43	1.47	3.93	1.10	3.66	1.33
17	4.28	1.01	4.24	1.18	4.42	.87	4.32	1.00
18	4.41	.94	4.16	1.27	4.32	1.15	4.30	1.13
19	4.54	.86	4.20	1.14	4.33	.99	4.36	1.01
20	4.47	.91	4.43	1.17	4.42	.98	4.44	1.02
21	3.71	1.26	3.23	1.52	3.95	1.33	3.64	1.40
22	4.70	.77	4.68	.73	4.77	.57	4.71	.69
23	4.34	1.11	4.38	1.07	4.43	1.05	4.38	1.07
24	3.45	1.50	2.54	1.53	2.76	1.45	2.91	1.54
25	3.78	1.33	3.78	1.42	3.49	.39	3.68	1.38
26	3.49	1.47	3.91	1.44	3.91	1.37	3.77	1.44
27	4.33	1.03	4.38	1.03	4.46	.96	4.39	1.00
28	4.25	1.02	4.04	1.21	4.07	1.02	4.12	1.08
29	3.63	1.30	3.20	1.49	3.54	1.27	3.45	1.36
30	4.49	.88	4.49	.92	4.44	.93	4.48	.91
31	4.33	1.02	4.37	1.01	4.58	.78	4.42	.94
32	3.84	1.14	3.46	1.46	3.94	1.05	3.75	1.24
33	3.86	1.20	3.79	1.26	3.31	1.36	3.65	1.30
34	4.01	1.11	4.34	.92	4.35	.96	4.24	1.01
35	4.36	1.04	4.27	1.11	4.52	.94	4.39	1.03

Table 41 continued

Item Number	Low (N=83)		Medium (N=83)		High (N=86)		Total Group (N=252)	
	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.
36	4.38	1.06	4.16	1.29	4.45	.98	4.33	1.12
37	3.94	1.16	3.32	1.55	4.00	1.11	3.75	1.32
38	4.42	.91	4.24	1.07	4.29	.94	4.32	.98
39	4.65	.78	4.68	.66	4.55	.88	4.63	.78
40	3.39	1.47	2.86	1.56	3.08	1.48	3.11	1.51
41	3.83	1.27	3.07	1.63	3.69	1.33	3.53	1.45
42	4.28	1.06	3.83	1.37	4.06	1.15	4.05	1.21
43	4.08	1.24	4.30	1.10	4.39	1.09	4.26	1.15
44	4.28	.92	4.15	1.11	4.31	.92	4.25	.99
45	3.91	1.24	3.90	1.36	4.29	.95	4.04	1.20

Table 42

Grade 5

Implementation Year 1

Work Values Inventory Questionnaire

Proportion of Pupils Endorsing Each Alternative on Each Item
by Implementation Level and for Total Group

Item Number	Low (N=83)					Medium (N=83)					High (N=86)					Total Group (N=252)				
	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
1	1	10	21	29	39	16	10	12	11	51	16	17	23	18	27	11	12	19	19	39
2	0	4	5	22	70	5	4	6	10	75	5	4	5	17	70	3	4	5	16	72
3	5	4	14	19	58	2	9	10	26	53	6	7	11	22	54	5	7	12	22	55
4	11	13	21	20	35	25	19	16	16	25	10	10	14	24	42	15	14	17	20	34
5	9	9	11	22	49	17	9	15	9	50	5	11	13	16	55	10	10	13	15	52
6	3	8	14	25	51	4	7	7	21	60	6	4	16	14	60	4	6	13	20	57
7	16	16	13	13	42	52	6	8	6	28	34	17	17	10	22	34	13	13	10	30
8	38	8	19	17	18	32	15	12	15	27	31	12	15	21	18	33	11	17	18	21
9	5	1	16	11	66	4	0	10	14	73	7	7	12	16	57	5	3	13	14	65
10	4	5	9	17	65	5	4	10	15	67	4	4	12	11	70	4	4	10	14	67
11	7	6	6	31	49	2	2	13	17	65	4	0	7	23	67	4	3	9	24	60
12	2	1	15	26	55	6	7	11	22	53	1	5	10	15	69	3	4	12	21	59
13	5	9	10	11	65	4	6	10	23	57	5	4	7	14	70	4	6	9	16	64
14	45	6	17	6	25	52	12	15	13	7	55	17	12	11	5	51	12	15	10	12
15	5	1	21	28	45	7	6	16	28	43	7	5	25	29	34	7	4	21	28	40
16	9	17	16	20	37	17	10	17	23	32	1	11	24	23	42	9	13	19	22	37
17	2	4	14	24	56	4	7	9	22	59	1	2	11	25	61	2	4	11	24	59
18	2	4	5	27	61	9	4	10	19	59	5	6	8	14	67	5	4	8	20	62
19	0	6	5	16	72	5	4	16	17	58	2	5	9	26	59	2	5	10	20	53
20	3	1	9	21	67	6	4	7	7	76	1	5	13	12	69	3	3	10	13	70
21	9	8	22	28	34	20	16	15	20	30	7	11	15	13	54	12	11	17	20	39
22	0	4	8	4	85	1	1	4	16	77	0	1	4	12	83	0	2	5	11	82
23	5	2	13	14	66	4	5	7	17	67	5	2	6	18	68	5	3	9	16	67
24	17	13	15	19	36	39	16	15	13	17	29	17	21	17	17	28	15	17	16	23
25	10	6	19	23	41	15	6	7	30	41	13	10	24	20	33	13	7	17	24	38
26	19	5	17	26	32	12	6	16	10	56	11	6	13	20	50	14	6	16	18	46
27	2	5	11	20	61	5	1	7	24	62	2	4	8	17	69	3	3	9	20	64
28	4	3	11	29	53	6	6	14	25	49	4	4	16	36	41	5	4	14	30	48
29	10	7	26	22	34	22	10	22	20	27	11	10	20	35	25	14	9	23	26	28
30	0	6	6	19	68	4	1	4	25	67	1	4	12	16	67	2	4	7	20	67
31	2	4	14	19	61	4	1	13	18	63	1	1	7	19	71	2	2	11	19	65
32	6	5	18	38	32	15	14	14	24	33	2	10	14	39	35	8	10	15	34	33
33	6	8	18	30	38	9	7	17	30	37	15	12	21	29	23	10	9	19	30	32
34	1	11	19	22	46	1	4	12	26	56	4	1	10	29	57	2	5	13	26	54
35	4	3	10	19	64	5	5	7	24	59	2	4	6	15	73	4	4	8	20	65

Table 42 continued

Item Number	Low (N=83)					Medium (N=83)					High (N=86)					Total Group (N=252)				
	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
36	5	1	10	19	65	7	9	6	17	61	2	5	6	19	67	5	5	7	18	64
37	5	6	21	25	42	21	12	16	17	34	4	9	13	33	41	10	9	17	25	39
38	1	3	14	18	65	2	6	15	18	59	1	6	7	33	52	2	5	12	23	58
39	1	2	4	15	77	1	0	4	20	76	1	2	11	11	74	1	2	6	15	76
40	17	11	17	22	31	32	9	21	16	22	24	8	25	19	23	25	9	21	19	25
41	8	7	15	30	39	30	9	17	14	31	11	6	18	27	36	16	8	17	23	35
42	2	5	15	17	60	10	10	14	21	46	6	4	16	28	47	6	6	15	22	51
43	6	7	13	20	54	5	3	11	19	62	6	1	7	19	66	6	4	10	19	61
44	1	3	16	27	53	5	4	15	26	51	0	6	13	24	57	2	4	15	25	54
45	10	2	14	34	40	9	10	16	15	51	1	4	16	23	56	7	5	15	24	49

Table 43

Grade 5

Work Values Inventory Questionnaire

Implementation Year 2

Means and Standard Deviations of Pupil Responses to Items by Implementation Level and for Total Group

Item Number	Low (N=63)		Medium (N=87)		High (N=69)		Total Group (N=219)	
	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.
1	3.69	1.48	4.16	1.05	4.14	1.13	4.02	1.22
2	4.10	.89	4.73	.64	4.41	.83	4.44	.82
3	4.07	1.32	4.19	1.20	4.15	1.16	4.14	1.22
4	2.96	1.43	4.04	1.20	3.33	1.32	4.50	1.38
5	3.65	1.38	3.96	1.32	4.07	1.20	3.91	1.31
6	4.00	1.19	4.45	1.05	4.01	1.29	4.18	1.19
7	3.05	1.61	3.28	1.52	3.03	1.67	3.13	1.59
8	2.44	1.48	4.16	1.30	3.10	1.71	3.31	1.65
9	4.03	1.20	4.89	.48	4.57	.82	4.54	.92
10	3.79	1.56	4.55	.93	4.54	.91	4.33	1.19
11	4.53	1.10	4.77	.48	4.16	1.23	4.50	1.00
12	4.03	1.30	4.58	.91	4.22	1.08	4.30	1.11
13	4.36	1.06	4.79	.57	4.46	.99	4.52	.93
14	2.38	1.51	2.71	1.67	1.87	1.26	2.28	1.50
15	3.97	.95	4.65	.74	3.76	1.17	4.09	1.05
16	3.67	1.34	4.49	.78	3.63	1.37	3.89	1.27
17	4.26	.99	4.77	.55	4.39	.93	4.46	.88
18	4.59	.86	4.71	.64	4.51	.86	4.60	.80
19	4.18	1.15	4.55	.92	4.47	.97	4.40	1.03
20	4.34	1.19	4.73	.87	4.57	.78	4.54	.96
21	3.26	1.63	4.43	.81	3.83	1.32	3.81	1.38
22	4.67	.87	5.00	.00	4.81	.52	4.82	.60
23	4.56	.91	4.67	.76	4.45	.90	4.55	.87
24	4.03	1.17	3.96	1.31	3.10	1.58	3.65	1.44
25	4.04	1.20	4.35	1.10	3.57	1.50	3.94	1.36
26	3.75	1.25	3.96	1.25	3.96	1.28	3.89	1.26
27	4.17	1.23	4.83	.51	4.58	.69	4.52	.90
28	3.91	1.40	4.56	.70	4.19	1.05	4.21	1.12
29	3.54	1.62	4.40	1.11	3.58	1.38	3.81	1.43
30	4.10	1.14	4.73	.60	4.45	.93	4.42	.95

Table 43 continued

Item Number	Low (N=63)		Medium (N=87)		High (N=69)		Total Group (N=219)	
	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.
31	4.19	1.05	4.73	.77	4.52	.81	4.47	.91
32	3.89	1.38	4.31	.88	3.81	1.30	3.98	1.23
33	3.67	1.29	4.42	.91	3.90	1.29	3.98	1.22
34	4.31	1.04	4.85	.61	4.29	.89	4.56	.91
35	4.45	.94	4.90	.30	4.66	.73	4.66	.74
36	4.31	1.11	4.67	.71	4.49	.98	4.49	.96
37	3.71	1.43	4.54	.67	3.87	1.30	4.01	1.24
38	4.45	.98	4.69	.58	4.28	.97	4.46	.89
39	4.43	.96	4.90	.45	4.75	.53	4.69	.71
40	3.91	1.23	3.46	1.58	3.65	1.29	3.68	1.37
41	3.82	1.24	4.44	1.00	3.66	1.37	3.94	1.26
42	4.39	1.01	4.79	.57	4.09	1.26	4.39	1.05
43	4.46	.87	4.88	.38	4.40	.85	4.57	.78
44	4.27	.96	4.81	.53	4.78	.77	4.51	.80
45	4.46	.95	4.69	.58	4.45	.82	4.53	.81

Table 44

Grade 5

Work Values Inventory Questionnaire

Implementation Year 2

Proportion of Pupils Endorsing Each Alternative
on Each Item by Implementation Level and for Total Group

Item Number	Low (N=63)					Medium (N=87)					High (N=69)					Total Group (N=219)				
	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
1	14	9	19	12	47	1	9	12	28	50	4	4	17	20	54	6	7	16	21	50
2	0	7	14	41	38	0	1	7	9	83	1	1	9	32	57	0	3	9	26	61
3	7	8	16	9	60	4	11	8	17	60	4	4	21	13	57	5	8	14	13	59
4	23	16	21	23	18	5	8	14	22	50	10	22	16	29	23	12	15	17	25	32
5	11	12	18	21	39	8	11	9	22	50	6	6	16	20	52	8	9	14	21	48
6	4	11	16	21	48	4	4	7	14	71	7	7	13	19	52	5	7	12	18	58
7	26	17	12	16	29	21	9	22	16	32	32	10	9	19	29	26	12	15	17	30
8	39	19	17	10	15	8	8	5	18	61	33	7	9	18	33	25	11	10	16	38
9	3	10	17	17	52	0	1	3	1	95	1	1	7	18	72	1	4	8	11	75
10	14	14	9	7	57	4	0	7	16	74	1	4	6	15	73	6	5	7	13	69
11	7	2	2	12	78	0	0	3	17	80	9	1	10	24	56	5	0	5	18	71
12	9	3	19	14	55	1	5	5	11	78	3	6	14	20	57	4	5	12	15	64
13	5	0	14	17	64	0	2	2	12	85	3	4	6	17	70	3	2	7	16	72
14	43	17	14	10	16	38	15	8	13	25	61	10	16	7	6	49	14	13	10	15
15	0	12	10	47	31	2	0	4	19	75	6	7	25	28	34	3	7	14	31	45
16	9	12	22	17	40	2	0	6	31	61	10	13	15	25	36	7	9	15	24	44
17	0	7	18	18	58	0	2	0	17	81	3	0	13	23	61	1	3	11	20	66
18	2	2	9	12	76	0	2	4	15	79	1	1	10	18	69	1	2	8	15	74
19	4	7	16	16	58	0	8	6	10	76	3	1	12	13	71	2	5	11	13	68
20	5	7	7	10	71	4	0	4	4	88	0	4	4	21	71	3	4	5	12	76
21	24	12	14	14	36	0	2	14	24	61	9	9	17	22	43	11	8	15	20	46
22	2	4	5	5	84	0	0	0	0	100	0	1	1	12	86	0	2	2	6	89
23	2	3	8	10	76	2	0	6	13	79	3	1	6	28	62	2	2	7	18	72
24	9	2	9	40	41	10	6	12	25	48	28	9	17	19	28	16	6	13	27	38
25	7	7	16	16	54	4	6	8	17	65	16	10	16	17	41	10	8	13	17	52
26	12	2	17	39	31	8	6	15	25	46	9	6	13	26	46	9	4	15	30	41
27	7	5	9	22	57	0	0	6	6	88	0	1	7	23	68	2	2	7	18	70
28	13	5	11	21	50	0	0	12	21	67	4	3	12	31	50	6	3	11	25	55
29	23	5	9	21	42	6	4	2	21	67	13	10	14	30	32	14	7	9	25	46
30	5	5	12	28	49	0	2	2	17	79	1	6	4	23	65	2	4	6	23	64

Table 44 continued

Item Number	Low (N=63)					Medium (N=87)					High (N=69)					Total Group (N=219)				
	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
31	0	10	16	19	55	2	2	2	10	85	0	3	11	18	68	0	5	10	16	69
32	11	9	11	21	49	0	6	10	33	52	10	7	12	33	38	7	7	11	29	46
33	9	10	21	26	34	2	2	12	21	63	10	1	22	22	45	7	4	18	23	47
34	3	5	7	27	58	2	0	0	8	90	0	6	12	30	52	2	4	7	23	65
35	2	2	16	12	69	0	0	0	10	90	1	0	6	16	76	1	0	7	13	78
36	3	7	9	17	64	0	2	8	12	79	4	1	4	20	70	3	3	7	17	70
37	16	5	10	31	38	0	0	10	27	63	10	4	15	28	42	9	3	12	29	47
38	2	5	9	16	69	0	0	6	19	75	1	6	9	30	54	1	4	8	22	65
39	0	7	12	12	69	0	2	0	4	94	0	0	4	16	79	0	3	6	11	80
40	9	4	14	34	39	23	4	13	23	37	12	8	11	42	27	14	5	13	34	34
41	5	12	18	25	40	4	4	2	25	65	12	7	21	22	37	7	8	14	24	47
42	2	5	12	14	67	0	0	8	6	87	7	6	12	19	55	3	4	11	14	68
43	2	2	9	23	64	0	0	2	8	90	0	4	10	25	60	0	2	7	19	70
44	4	2	9	36	50	0	0	6	8	87	1	0	7	31	60	2	0	7	26	65
45	4	0	11	18	68	0	0	6	19	75	0	3	12	22	63	1	1	10	20	68

Table 45

Grade 5
Work Values Inventory
Implementation Year 1 and 2
Means and Standard Deviations of Pupil Responses
to Items by Implementation Level and for Total Group

Item Number	Low (N=146)		Medium (N=170)		High (N=155)		Total (N=471)	
	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.
1	3.83	1.25	3.92	1.35	3.64	1.37	3.80	1.33
2	4.37	.85	4.60	.91	4.42	.96	4.47	.92
3	4.15	1.22	4.19	1.14	4.13	1.19	4.16	1.18
4	3.31	1.42	3.49	1.48	3.59	1.35	3.47	1.42
5	3.81	1.36	3.80	1.46	4.07	1.23	3.90	1.35
6	4.10	1.13	4.35	1.09	4.11	1.24	4.19	1.16
7	3.29	1.59	2.89	1.69	2.84	1.62	3.00	1.64
8	2.58	1.52	3.51	1.60	2.97	1.59	3.04	1.62
9	4.20	1.16	4.70	.78	4.30	1.13	4.41	1.05
10	4.12	1.33	4.45	1.03	4.46	1.00	4.35	1.13
11	4.27	1.19	4.48	.80	4.34	1.07	4.40	1.13
12	4.19	1.21	4.32	1.11	4.35	1.01	4.29	1.08
13	4.28	1.61	4.46	.96	4.44	1.04	4.39	1.06
14	2.51	1.60	2.34	1.51	1.90	1.25	2.24	1.48
15	4.02	1.03	4.21	1.12	3.77	1.17	2.99	1.12
16	3.63	1.36	3.84	1.35	3.79	1.23	3.76	1.31
17	4.27	1.00	4.45	.97	4.41	.89	4.38	.95
18	4.49	.91	4.38	1.10	4.41	1.03	4.42	1.01
19	4.39	1.01	4.33	1.07	4.39	.98	4.37	1.02
20	4.42	1.04	4.54	1.07	4.49	.89	4.48	1.00
21	3.52	1.44	3.70	1.41	3.90	1.32	3.71	1.40
22	4.68	.81	4.80	.59	4.79	.55	4.76	.66
23	4.43	1.04	4.50	.97	4.44	.98	4.45	.99
24	3.70	1.39	3.10	1.61	2.92	1.52	3.22	1.54

Table 45 continued

Item Number	Low (N=146)		Medium (N=170)		High (N=155)		Total (N=471)	
	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.
25	3.89	1.31	4.00	1.33	3.52	1.44	3.79	1.38
26	3.60	1.38	3.93	1.37	3.93	1.33	3.82	1.36
27	4.26	1.10	4.55	.89	4.52	.85	4.44	.96
28	4.11	1.20	4.24	1.06	4.13	1.03	4.16	1.10
29	3.59	1.43	3.66	1.48	3.56	1.31	3.60	1.40
30	4.33	1.01	4.58	.82	4.44	.93	4.45	.93
31	4.27	1.03	4.51	.94	4.55	.79	4.44	.93
32	3.87	1.24	3.79	1.32	3.88	1.16	3.85	1.24
33	3.78	1.24	4.04	1.18	3.58	1.36	3.79	1.27
34	4.14	1.08	4.54	.85	4.32	.93	4.33	.97
35	4.40	.99	4.51	.94	4.59	.85	4.50	.93
36	4.35	1.08	4.36	1.13	4.47	.98	4.39	1.06
37	3.84	1.28	3.79	1.41	3.94	1.20	3.86	1.30
38	4.43	.94	4.42	.94	4.29	.95	4.38	.94
39	4.56	.86	4.77	.60	4.64	.75	4.65	.75
40	3.60	1.39	3.11	1.59	3.34	1.42	3.35	1.48
41	3.82	1.25	3.61	1.57	3.67	1.34	3.70	1.39
42	4.32	1.04	4.20	1.22	4.07	1.20	4.20	1.16
43	4.24	1.12	4.53	.93	4.39	.99	4.39	1.02
44	4.27	.93	4.40	.98	4.39	.86	4.36	.92
45	4.14	1.16	4.21	1.18	4.36	.89	4.24	1.08

Table 46

Grade 5

Work Values Inventory

Implementation Year 1 and 2

Proportion of Pupils Endorsing Each Alternative on Each Item

by Implementation Level and for Total Group

Item Number	Low (N=146)					Medium (N=170)					High (N=155)					Total Group (N=471)				
	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
1	7	8	20	22	42	9	10	12	19	50	11	11	20	19	39	9	10	17	20	44
2	0	5	9	30	56	3	3	6	10	79	3	3	7	24	64	2	3	7	21	67
3	6	6	15	15	59	3	10	9	22	56	5	6	15	18	56	5	7	13	18	57
4	16	14	21	21	28	15	13	15	19	37	10	15	15	26	34	14	14	17	22	33
5	10	10	14	21	45	13	10	12	15	50	5	9	14	18	54	9	9	14	18	50
6	3	9	15	24	50	4	6	7	18	65	7	5	15	16	57	5	7	12	19	58
7	20	17	12	14	36	37	8	15	11	30	33	14	13	14	25	31	13	14	13	30
8	39	12	18	14	17	20	11	9	16	43	31	10	15	20	25	30	11	14	17	29
9	4	5	17	14	60	2	0	6	8	83	5	5	10	17	64	4	3	11	13	70
10	8	9	9	13	62	4	2	8	15	70	3	4	9	13	71	5	5	9	14	68
11	7	4	4	23	61	1	1	8	17	72	6	0	9	23	62	5	2	7	21	65
12	5	2	17	21	55	4	6	8	17	65	2	5	12	18	63	4	5	12	18	61
13	5	5	12	14	65	2	4	17	19	68	4	4	7	16	70	4	4	8	16	68
14	44	11	16	8	21	47	13	12	13	14	58	14	14	8	5	50	13	14	10	13
15	3	6	16	36	39	3	4	11	25	55	7	6	25	28	34	5	5	18	30	42
16	9	15	19	19	38	11	6	13	27	43	5	12	20	24	38	8	11	17	23	40
17	1	5	15	21	57	2	5	5	20	67	2	1	12	24	61	2	4	11	22	62
18	2	3	7	21	67	5	3	8	17	67	3	4	9	16	68	4	3	8	18	67
19	1	7	10	16	66	3	5	12	14	65	3	3	10	20	64	1	5	11	17	65
20	4	4	8	16	68	5	2	6	6	81	0	5	9	16	70	3	4	8	13	73
21	15	9	18	22	35	12	11	14	21	42	8	10	16	17	49	12	10	16	20	42
22	0	4	7	4	85	0	0	2	10	86	0	1	3	12	84	0	2	4	9	85
23	4	3	11	12	71	3	3	7	16	71	4	2	6	23	66	4	3	8	17	69
24	13	8	13	28	38	28	12	13	18	29	28	13	20	18	22	23	11	15	21	29
25	9	7	18	20	47	10	6	7	25	51	15	10	21	19	36	11	8	15	21	44
26	16	4	17	32	32	10	6	16	16	52	10	6	13	23	48	12	5	15	23	44
27	4	5	10	21	59	3	0	7	17	72	1	3	8	20	69	3	3	8	19	67
28	7	4	11	26	52	4	4	13	23	56	4	3	14	34	45	5	4	13	28	51
29	15	7	19	22	37	16	7	14	20	43	12	10	18	33	28	14	8	17	25	36
30	2	6	9	23	60	2	2	3	18	64	1	5	9	19	66	2	4	7	21	66
31	1	7	14	19	59	3	1	9	15	72	0	2	9	19	70	2	3	11	18	67
32	8	7	15	31	40	9	11	12	27	40	6	8	13	37	36	8	9	13	32	39
33	7	9	19	28	36	6	3	15	26	47	13	7	22	25	33	9	7	19	27	39
34	2	9	14	24	51	1	2	7	19	70	2	3	10	29	55	2	5	11	24	58
35	3	2	13	16	66	3	3	4	19	71	1	2	6	16	74	3	2	8	17	71
36	4	4	9	18	64	4	6	7	15	68	3	3	5	20	68	4	4	7	18	67
37	9	6	17	28	41	13	7	13	21	46	7	7	14	31	42	10	7	15	27	41
38	1	4	12	17	66	1	4	11	19	65	1	6	8	32	53	1	5	10	23	61
39	0	4	7	14	74	0	0	2	13	83	0	1	8	17	77	0	2	6	14	78
40	14	8	16	27	35	29	7	18	19	28	19	8	19	30	25	20	8	18	25	29
41	7	9	16	28	39	20	7	11	18	44	11	8	19	25	37	13	8	16	24	40
42	2	5	14	16	63	6	6	11	15	62	7	5	14	24	51	5	5	13	22	58
43	4	5	11	21	58	3	2	8	15	73	3	3	9	22	63	4	3	9	19	65
44	2	2	13	30	52	3	2	11	19	65	0	3	11	27	58	2	3	12	26	58
45	7	1	13	27	51	5	6	12	16	60	0	3	14	23	59	4	4	13	22	57

Ninth-Grade Results

A. Ninth-Grade Teachers

1. Ninth-Grade Experimental versus Ninth-Grade Comparison Teachers. Only the *Teachers Career Education Participation Form* was given to both Experimental and Comparison Teachers. Table 47 shows the results of the analyses of variance for the Experimental and Comparison Teachers on the 27 items of the *Teacher Career Education Participation Form*.

a. Experimental Teachers scored higher than Comparison Teachers on 13 out of the 27 items. Comparison Teachers scored higher on 14 (Chi-Square= 0.00; not significant).

b. $P \leq .20$ was found on 1 item (Number 19) in favor of the Experimental Teachers.

c. A significant P value of .20 or less was found on 4 items (Numbers 4, 15, 26, 27) in favor of the control gorup.

2. Ninth-Grade Experimental Teachers. Tables 48-51 show results of frequency distributions for both *Teacher Career Education Participation Form* and *Career Education Objectives (Teacher Form)*. Means, standard deviations, and proportions of teachers endorsing each alternative for each item are listed for Implementation Year 1 and 2 where implementation levels Low, Medium and High are grouped together.

Tables 48 and 49 show the results of the *Teacher Career Education Participation Form*, while Tables 50 and 51 show results of the *Career Education Objectives Questionnaire*.

The groups Ns were considered to be too small to perform analyses of variance for Implementation Year. However, comparing the performance of the two groups on these two measures, Implementation Year 2 (2-year program) scored higher (i.e., a higher mean score) than Implementation Year 1 on 11 of the 27 items of the *Teachers Career Education Participation Form*. Implementation Year 1 scored higher on 14. Group means were tied on 2 items (Chi-Square=0.15; P=0.70). Implementation Year 2 scored higher than Year 1 on 8 of the 36 items of the *Career Education Objectives Questionnaire*. Implementation year 1 scored higher on 26. Group means were tied on 2 items (Chi-Square=8.03; $P < .01$).

Table 47

Grade 9
Analyses of Variance
Experimental vs. Comparison Teachers for
Teacher Career Education Participation Form

Item Number	F Value	Probability	Experimental Teachers Mean (N = 10)	Comparison Teachers Mean (N = 33)	Which Group Scored Higher
1	0.12	0.73	2.55	2.45	Experimental
2	1.28	0.26	2.40	2.13	Experimental
3	0.31	0.59	1.45	1.58	Comparison
4	1.72	0.19*	1.20	1.53	Comparison
5	0.00	0.95	3.05	3.06	Comparison
6	0.37	0.56	3.00	3.12	Comparison
7	0.40	0.53	3.10	3.24	Comparison
8	0.02	0.89	2.55	2.52	Experimental
9	1.34	0.25	2.60	2.30	Experimental
10	0.27	0.61	2.75	2.88	Comparison
11	0.01	0.93	2.80	2.82	Comparison
12	0.43	0.52	2.42	2.59	Comparison
13	0.29	0.60	2.40	2.55	Comparison
14	0.73	0.40	2.70	2.48	Experimental
15	2.80	0.09*	2.05	2.45	Comparison
16	0.08	0.77	2.79	2.73	Experimental
17	1.59	0.21	3.40	3.16	Experimental
18	1.55	0.22	3.10	2.84	Experimental
19	2.01	0.16*	3.10	2.82	Experimental
20	0.44	0.52	2.70	2.53	Experimental
21	0.07	0.79	2.25	2.31	Comparison
22	0.00	0.98	2.10	2.09	Experimental
23	0.04	0.84	2.10	2.15	Comparison
24	0.22	0.65	2.20	2.09	Experimental
25	0.15	0.70	3.20	3.27	Comparison
26	4.50	0.04*	1.60	2.12	Comparison
27	2.52	0.12*	1.85	2.27	Comparison

Table 48

Grade 9

Experimental Group. Teacher Career Education Participation Form

Implementation Year 1, All Implementation Levels
Means and Standard Deviations and Proportion of
Teachers Endorsing Each Alternative for Each Item
(N=10)

Item Number	Mean	S.D.	1	2	3	4
1	2.80	0.79	0	40	40	20
2	2.60	0.84	0	60	20	20
3	1.60	0.84	60	20	20	0
4	1.20	0.63	90	0	10	0
5	3.10	0.74	0	20	50	30
6	2.80	0.63	0	30	60	10
7	3.20	0.78	0	20	40	40
8	2.60	0.70	0	50	40	10
9	2.70	0.82	10	20	60	10
10	2.90	0.74	0	30	50	20
11	2.80	0.63	0	30	60	10
12	2.44	0.88	11	44	33	11
13	2.30	0.82	20	30	50	0
14	2.60	0.84	10	30	50	10
15	2.00	0.67	20	60	20	0
16	2.90	0.74	0	30	50	20
17	3.30	0.67	0	10	50	40
18	2.90	0.74	0	30	50	20
19	2.89	0.60	0	22	67	11
20	3.10	0.57	0	10	70	20
21	2.70	0.82	0	50	30	20
22	2.50	0.85	10	40	40	10
23	2.50	0.97	20	20	50	10
24	1.90	0.57	20	70	10	0
25	3.10	0.57	0	10	70	20
26	1.50	0.53	50	50	0	0
27	1.80	1.03	50	30	10	10

Table 49

Grade 9

Experimental Group, Teacher Career Education Participation Form
Implementation Year 2, All Implementation Levels
Means and Standard Deviations and Proportion of
Teachers Endorsing Each Alternative for Each Item
(N=9)

Item Number	Mean	S.D.	1	2	3	4
1	2.30	1.06	20	50	10	20
2	2.20	0.92	20	50	20	10
3	1.30	0.67	80	10	10	0
4	1.20	0.63	90	0	10	0
5	3.00	0.67	0	20	60	20
6	3.20	0.79	0	20	40	40
7	3.00	1.05	10	20	30	40
8	2.50	1.08	20	30	30	20
9	2.50	0.97	20	20	50	10
10	2.60	0.70	10	20	70	0
11	2.80	1.03	20	0	60	20
12	2.40	1.07	20	40	20	20
13	2.50	1.18	20	40	10	30
14	2.80	1.03	10	30	30	30
15	2.10	0.88	30	30	40	0
16	2.67	0.87	11	22	56	11
17	3.50	0.53	0	0	50	50
18	3.30	0.48	0	0	70	30
19	3.30	0.48	0	0	70	30
20	2.30	0.95	30	10	60	0
21	1.80	0.79	40	40	20	0
22	1.70	0.67	40	50	10	0
23	1.70	0.67	40	50	10	0
24	2.50	0.71	0	60	30	10
25	3.30	0.82	0	20	30	50
26	1.70	0.95	60	10	30	0
27	1.90	0.99	50	10	40	0

Table 50

Grade 9

Experimental Group. Career Education Objectives (Teacher Form)

Implementation Year 1, All Implementation Levels
Means and Standard Deviations and Proportion of Teachers Endorsing Each Alternative for Each Item
(N=10)

Item Number	Mean	S.D.	1	2	3	4
1	2.60	0.84	10	30	50	10
2	3.10	0.88	0	30	30	40
3	2.90	0.57	0	20	70	10
4	2.60	0.84	10	30	50	10
5	2.90	0.99	10	20	40	30
6	2.90	0.99	0	50	10	40
7	2.70	0.95	10	30	40	20
8	3.00	0.82	0	30	40	30
9	2.90	0.88	0	40	30	30
10	2.20	0.79	10	70	10	10
11	2.50	0.85	10	40	40	10
12	3.00	0.67	0	20	60	20
13	2.70	0.82	0	50	30	20
14	2.80	1.14	20	10	40	30
15	2.00	0.67	20	60	20	0
16	2.70	0.95	10	30	40	20
17	2.20	0.63	10	60	30	0
18	2.00	0.82	20	70	0	10
19	2.60	0.70	0	50	40	10
20	2.55	1.01	11	44	22	22
21	2.70	0.95	10	30	40	20
22	2.20	0.92	20	50	20	10
23	2.50	0.97	10	50	20	20
24	2.50	1.18	30	10	40	20
25	2.40	0.70	10	40	50	0
26	2.50	0.71	0	60	30	10
27	2.60	0.97	10	40	30	20
28	2.60	0.84	10	30	50	10
29	2.60	1.17	20	30	20	30
30	2.70	0.67	0	40	50	10
31	2.60	0.70	0	50	40	10
32	2.10	0.74	20	50	30	0
33	2.20	0.63	10	60	30	0
34	3.00	0.67	0	20	60	20
35	2.70	0.67	0	40	50	10
36	2.70	0.82	0	50	30	20

Table 51

Grade 9

Experimental Group. Career Education Objectives (Teacher Form)
Implementation Year 2, All Implementation Levels
Means and Standard Deviations and Proportion of Teachers Endorsing Each Alternative for Each Item
(N=10)

Item Number	Mean	S.D.	1	2	3	4
1	2.70	0.67	0	40	50	10
2	2.90	0.74	0	30	50	20
3	2.80	0.79	0	40	40	20
4	2.60	0.70	0	50	40	10
5	2.80	0.42	0	20	80	0
6	3.10	0.57	0	10	70	20
7	2.60	0.70	10	20	70	0
8	2.50	0.71	10	30	60	0
9	2.80	0.79	0	40	40	20
10	2.00	0.67	20	60	20	0
11	1.80	0.79	40	40	20	0
12	2.40	0.84	10	50	30	10
13	2.40	0.84	10	50	30	10
14	2.30	0.95	20	40	30	10
15	2.10	0.57	10	70	20	0
16	2.60	0.52	0	40	60	0
17	2.30	0.82	10	60	20	10
18	2.20	0.92	20	50	20	10
19	2.30	0.82	10	60	20	10
20	2.60	0.97	10	40	30	20
21	2.40	0.97	20	30	40	10
22	1.90	0.74	30	50	20	0
23	2.00	0.30	30	50	10	10
24	2.50	1.08	20	30	30	20
25	1.90	0.74	30	50	20	0
26	2.00	0.94	30	50	10	10
27	2.20	0.63	10	60	30	0
28	2.40	0.84	10	50	30	10
29	2.40	0.84	10	50	30	10
30	2.20	0.92	20	50	20	10
31	2.40	0.84	10	50	30	10
32	2.00	1.05	40	30	20	10
33	2.30	0.67	0	80	10	10
34	2.56	0.73	0	56	33	11
35	2.33	0.87	11	56	22	11
36	2.22	0.97	22	44	22	11

B. Ninth-Grade Pupils

1. Career Education Objectives Questionnaire (Student: Advanced). Table 52 shows the results of the analyses of variance for ninth-grade pupils for Implementation Year, Implementation Level and the Interaction of Implementation Year and Implementation Level.

a. Second year pupils scored higher on 21 of the 53 items. First year pupils scored higher on 32 (Chi-Square = 1.89, P = 0.18).

b. A significant P value of .20 or less for Implementation Year was found on 24 of the 53 items.

(1) A P $\leq$ .20 was found on 9 of these items (Numbers 1, 13, 24, 26, 31, 37, 38, 49, 51) in favor of second year pupils.

(2) A significant P value of .20 or less was found on 15 of these items (Numbers 5, 7, 10, 11, 17, 18, 19, 21, 23, 27, 29, 39, 40, 42, 45) in favor of first year pupils.

c. A significant P value of .20 or less in Implementation Level was found 33 times out of the 53 times.

(1) High Implementation Level pupils scored highest on none of the items.

(2) Medium Implementation Level pupils scored highest on 29 of these items (Numbers 2,3, 6, 9, 10, 11, 12, 13, 14, 16, 17, 18, 19, 20, 22, 23, 24, 26, 28, 31, 32, 33, 34, 37, 38, 44, 45, 48, 53).

(3) Low Implementation Level pupils scored highest on 4 of these items (Numbers 1, 15, 25, 46).

d. The Interaction of Implementation Year and Implementation Level was found to be significant (P $\leq$ .20) for 22 of the 53 items (Numbers 2, 6, 8, 9, 15, 21, 23, 27, 28, 29, 30, 31, 32, 34, 40, 41, 43, 48, 49, 50, 51, 53).

e. Tables 53 and 54 are summary tables which show how many times each group ranked a certain way for Implementation Year by Implementation Level and for Implementation Level. Table 53 summarizes column 7 of Table 52 and Table 54 summarizes column 5 of Table 52 in the same manner as explained for Tables 6, 7, and 8 (Third-Grade Pupils, Career Education Objectives Questionnaire).

f. Tables 55, 57, and 59 show means and standard deviations of pupil responses to items by Implementation Level and for the total group for Implementation Year 1, Implementation Year 2 and for Implementation Years 1 and 2 taken together.

g. Proportions of pupils endorsing each alternative for each item by Implementation Level and for the total group for Implementation Year 1, Implementation Year 2 and Implementation Year 1 and 2 taken together are presented in Tables 56, 58 and 60.

Table 52

Grade 9
Analyses of Variance
A Comparison of Implementation Years and Implementation Levels for
Career Objectives Questionnaire (Student Form: Advanced)

Item Number	Comparison of Implementation Years (A)		Which Year Higher	Comparison of Implementation Levels (B)		Descending Order of Levels[3]	Probability AxB	Rank Order of Groups[1]
	F	P		F	P			1 2 3 4 5 6
1	1.84	.17*	2	17.90	.00*	L-M-H	.22	2-3-6-1-4-5
2	.48	.50	1	2.31	.10*	M-L-H	.20*	5-1-4-3-2-6
3	.04	.83	1	2.64	.07*	M-L-H	.62	3-2-4-5-1-6
4	.24	.63	2	1.02	.36	M-H-L	.70	6-2-3-4-1-5
5	1.86	.17*	1	0.15	.86	L-M-H	.22	4-2.5-1-2.5-5-6
6	1.40	.24	1	3.18	.04*	M-L-H	.13*	5-1-3-4-2-6
7	4.93	.03*	1	1.30	.27	M-L-H	.87	2-1-3-5-4-6
8	1.05	.31	1	3.65	.26	M-L-H	.00*	2-1-6-3-5-4
9	1.04	.31	1	11.84	.00*	M-L-H	.03*	4-1-6-3-2-5
10	5.88	.01*	1	3.31	.04*	M-L-H	.89	2-1-5-3-4-6
11	2.19	.14	1	4.29	.01*	M-L-H	.43	3-1-5-4-2-6
12	0.62	.44	1	10.76	.00*	M-L-H	.41	4.5-1-4.5-3-2-6
13	3.59	.06*	2	2.18	.11*	M-H-L	.91	6-3-4-5-1-2
14	0.11	.74	1	3.06	.05*	M-L-H	.28	4-1-5-2-3-6
15	0.00	.99	1	5.64	.00*	L-M-H	.03*	2-5-4-1-3-6
16	1.23	.27	1	2.22	.11*	M-H-L	.91	5-1-2-6-3-4
17	1.97	.16*	1	6.07	.00*	M-L-H	.61	3-1-4-5-2-6
18	9.62	.00*	1	2.28	.10*	M-L-H	.40	2-1-4-3-6-5
19	3.10	.08*	1	1.85	.16*	M-L-H	.43	3-1-4-2-5-6
20	0.21	.65	1	5.79	.00*	M-L-H	.84	3-1-6-4-2-5
21	5.83	.02*	1	0.87	.42	M-L-H	.01*	5-2-1-3-4-6
22	0.93	.34	1	1.77	.17*	M-H-L	.24	6-1-3-5-4-2
23	1.63	.20*	1	5.33	.01*	M-L-H	.07*	2-1-6-4-3-5
24	1.92	.16*	2	3.70	.02*	M-L-H	.55	5-1-6-3-2-4
25	0.44	.52	2	4.60	.01*	L-M-H	.98	3-4-6-1-2-5
26	4.80	.03*	2	5.19	.01*	M-L-H	.22	5-2-6-1-3-4
27	1.60	.20*	1	0.67	.52	H-M-L	.17*	5-1-2-4-6-3
28	1.38	.24	2	2.57	.08*	M-L-H	.05*	5-2-6-1-3-4
29	4.19	.04*	1	0.84	.44	H-M-L	.04*	3-4-1-5-2-6
30	0.52	.48	1	1.06	.35	M-H-L	.02*	6-1-3-2-5-4

Table 52 continued

Item Number	Comparison of Implementation Years (A)		Which Year Higher	Comparison of Implementation Levels (B)		Descending Order of Levels[3]	Probability AxB[2]	Rank Order of Groups[1] 1 2 3 4 5 6
	F	P		F	P			
31	0.19	.67	2	2.41	.09*	M-H-L	.14*	6-1-2-5-3-4
32	0.07	.79	2	1.92	.15*	M-H-L	.02*	6-1-3-2-4-5
33	0.04	.83	1	5.47	.00*	M-H-L	.45	3-1-5-6-2-4
34	0.75	.39	2	4.02	.02*	M-L-H	.06*	5-1-6-2-3-4
35	0.40	.53	2	1.46	.23	L-H-M	.55	2-6-4-1-3-5
36	0.00	.98	2	0.31	.74	L-H-M	.41	1-3-5-4-5-2
37	0.94	.33	1	5.64	.00*	M-L-H	.95	3-1-5-4-2-6
38	0.15	.70	1	2.92	.05*	M-L-H	.27	4-1-5-2-3-6
39	8.27	.00*	1	0.92	.40	H-L-M	.96	3-2-1-5-6-4
40	2.39	.12*	1	0.43	.66	M-H-L	.00*	3-1-5-6-4-2
41	2.77	.09*	2	1.43	.24	M-H-L	.01*	6-2-3-1-4-5
42	8.58	.00*	1	1.34	.26	L-H-M	.38	2-3-1-4-6-5
43	0.32	.58	1	1.01	.37	H-M-L	.12*	5-1-3-4-6-2
44	0.16	.69	1	3.41	.03*	M-H-L	.59	6-1-4-5-2-3
45	4.07	.04*	1	6.49	.02*	M-H-L	.83	5-1-2-6-3-4
46	0.06	.80	2	3.09	.05*	L-H-M	.23	1-6-4-3-5-2
47	2.33	.12*	2	1.06	.35	M-L-H	.88	5-3-6-2-1-4
48	2.83	.09*	2	2.31	.10*	M-L-H	.10*	5-1-6-4-2-3
49	3.20	.07*	2	0.29	.75	L-M-H	.03*	4-3-6-2-5-1
50	0.99	.32	2	0.68	.51	L-M-H	.04*	2-3.5-6-3.5-5-1
51	3.68	.05*	2	1.46	.23	M-H-L	.64	6-3-5-4-1-2
52	0.07	.79	2	1.52	.22	M-L-H	.11*	6-1-4-2-3-5
53	0.96	.33	2	5.39	.01*	M-H-L	.19*	5-1-6-4-2-3

*Statistically significant difference ($P \leq .20$) was observed between the means of the two groups.

Table 53

Grade 9

Career Education Objectives Questionnaire (Student Form: Advanced)

How Many Times Any Group Ranked from Highest to Lowest

Group \ Rank Order	1	2	3	4	5	6
	Highest					Lowest
IY1, IL1	2	10	11	6	14	10
IY1, IL2	32	8	7	2	1	3
IY1, IL3	5	4	9	11	9	15
IY2, IL1	7	9	10	14	9	4
IY2, IL2	5	15	12	8	8	5
IY2, IL3	2	7	4	12	12	16

IY=Implementation Year

IL=Implementation Level

1=Low
2=Medium
3=High

Table 54

Grade 9

Career Education Objectives Questionnaire (Student Form: Advanced)

How Many Times an Implementation Level Ranked 1st, 2nd or 3rd

	1	2	3
Lo	10	26	17
Med	39	9	5
Hi	4	18	31

Table 55

Grade 9

Career Education Objectives Questionnaire

Implementation Year 1
Means and Standard Deviations of Pupil Responses to Items
by Implementation Level and for Total Group

Item Number	Low (N=67)		Medium (N=113)		High (N=63)		Total Group (N=243)	
	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.
1	2.60	.53	2.61	.56	2.32	.50	2.52	.53
2	2.69	.56	2.82	.45	2.73	.51	2.76	.49
3	2.55	.53	2.61	.58	2.51	.56	2.56	.55
4	2.35	.72	2.53	.69	2.43	.64	2.46	.67
5	2.37	.71	2.44	.73	2.47	.67	2.41	.71
6	2.65	.58	2.88	.47	2.73	.51	2.77	.50
7	2.40	.64	2.49	.70	2.37	.68	2.42	.66
8	2.43	.59	2.61	.56	2.15	.65	2.43	.61
9	2.44	.62	2.78	.55	2.24	.56	2.54	.59
10	2.27	.66	2.36	.63	2.14	.64	2.27	.62
11	2.40	.61	2.63	.51	2.31	.59	2.48	.60
12	2.40	.69	2.67	.56	2.40	.53	2.52	.60
13	2.75	.51	2.85	.43	2.84	.48	2.82	.46
14	2.60	.58	2.75	.53	2.60	.59	2.66	.54
15	2.24	.64	2.05	.64	2.16	.51	2.12	.60
16	2.57	.56	2.71	.51	2.63	.52	2.65	.52
17	1.95	.63	2.07	.73	1.84	.66	1.97	.66
18	2.29	.61	2.50	.72	2.11	.70	2.33	.68
19	2.25	.62	2.42	.71	2.22	.61	2.31	.65
20	2.62	.55	2.75	.55	2.48	.59	2.64	.55
21	2.67	.60	2.80	.49	2.83	.38	2.77	.49
22	2.25	.67	2.51	.59	2.31	.53	2.38	.60
23	2.50	.59	2.62	.61	2.22	.61	2.48	.62
24	2.34	.60	2.56	.66	2.27	.73	2.41	.65
25	2.45	.62	2.45	.68	2.22	.71	2.38	.67
26	2.37	.58	2.52	.62	2.21	.52	2.39	.57
27	2.39	.56	2.58	.66	2.51	.54	2.51	.60
28	2.76	.47	2.91	.42	2.75	.44	2.82	.42
29	2.66	.57	2.67	.58	2.81	.40	2.69	.51
30	2.77	.46	2.97	.25	2.86	.40	2.88	.36
31	2.76	.53	2.94	.38	2.90	.35	2.88	.40
32	2.77	.46	2.97	.32	2.89	.32	2.89	.34
33	2.08	.61	2.43	.64	2.16	.63	2.25	.62
34	2.21	.66	2.40	.70	1.95	.71	2.22	.70
35	2.50	.62	2.31	.79	2.43	.64	2.39	.70
36	2.77	.46	2.75	.67	2.65	.54	2.71	.55
37	2.23	.59	2.41	.71	2.10	.73	2.27	.69
38	2.49	.62	2.73	.62	2.48	.62	2.59	.59
39	2.54	.67	2.51	.75	2.62	.58	2.56	.65
40	2.45	.65	2.55	.66	2.25	.72	2.44	.67

Table 55 continued

Item Number	Low (N=67)		Medium (N=113)		High (N=63)		Total Group (N=243)	
	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.
41	2.80	.48	2.97	.29	2.94	.25	2.91	.34
42	2.62	.67	2.52	.75	2.70	.56	2.58	.68
43	2.56	.59	2.74	.57	2.67	.60	2.67	.59
44	2.42	.62	2.66	.58	2.48	.64	2.55	.62
45	2.47	.68	2.78	.50	2.63	.63	2.66	.60
46	1.48	.77	1.19	.52	1.29	.58	1.29	.62
47	2.21	.61	2.35	.79	2.18	.59	2.25	.65
48	2.56	.53	2.65	.65	2.40	.64	2.57	.60
49	2.65	.48	2.65	.65	2.47	.59	2.61	.57
50	2.46	.60	2.41	.79	2.17	.77	2.36	.74
51	2.49	.62	2.68	.64	2.52	.59	2.58	.60
52	2.49	.67	2.74	.70	2.54	.62	2.60	.62
53	2.33	.65	2.65	.66	2.29	.68	2.45	.66

Table 56

Grade 9

Career Education Objectives Questionnaire

Implementation Year I

Proportion of Pupils Endorsing Each Alternative on Each Item by Implementation Level and for Total Group

Item Number	Low (N=67)			Medium (N=113)			High (N=63)			Total Group (N=243)		
	1	2	3	1	2	3	1	2	3	1	2	3
1	2	37	61	1	39	60	2	65	33	1	46	53
2	5	22	73	2	16	82	3	21	76	3	19	78
3	2	42	56	4	33	62	3	43	54	3	38	59
4	14	36	50	8	32	59	8	37	56	10	34	56
5	13	37	50	13	31	56	10	34	56	13	33	54
6	5	26	69	3	8	88	3	21	76	3	16	80
7	8	44	48	9	35	55	11	41	48	10	39	51
8	5	48	48	3	35	61	15	56	29	6	44	49
9	6	43	51	4	17	79	6	63	31	5	36	59
10	11	50	39	6	55	39	14	57	29	9	55	36
11	6	47	47	4	31	65	6	56	37	5	42	53
12	11	37	52	4	26	70	2	56	42	5	37	58
13	3	19	78	2	12	85	5	6	89	3	12	85
14	5	30	65	2	23	74	5	31	65	3	27	69
15	11	53	35	17	61	20	6	71	22	13	63	25
16	3	37	60	2	27	71	2	33	65	2	31	67
17	22	60	17	20	54	25	31	55	15	24	56	20
18	8	56	37	10	31	58	19	51	30	12	43	45
19	10	56	35	12	35	52	10	59	32	11	48	42
20	3	32	65	3	21	75	5	43	52	3	30	67
21	6	21	73	3	16	81	0	17	83	3	17	80
22	13	49	38	4	42	53	3	63	34	6	50	44
23	5	40	55	6	28	66	10	59	32	6	40	54
24	6	53	40	6	33	60	16	40	44	9	41	50
25	6	42	52	9	37	52	16	46	38	10	42	48
26	5	53	42	4	42	53	5	69	26	4	52	43
27	3	55	42	8	26	65	2	46	52	5	39	56
28	2	21	77	2	7	90	0	25	75	1	16	83
29	5	24	71	3	29	67	0	19	91	3	26	72
30	2	19	79	1	2	96	2	11	87	1	9	90
31	5	15	81	2	4	93	2	6	92	3	7	90
32	2	20	79	1	3	95	0	11	89	0	9	90
33	15	63	23	6	48	45	13	59	29	10	56	35
34	13	52	34	11	38	50	27	51	22	16	46	38
35	6	37	56	19	31	48	8	41	51	13	35	52
36	2	19	79	7	13	79	3	29	68	5	19	76
37	8	61	31	12	36	51	22	46	32	14	45	41
38	7	38	56	4	22	73	6	40	54	5	31	64
39	10	26	64	10	24	64	5	29	67	9	26	65
40	8	38	54	8	30	61	16	43	41	10	36	54

Table 56 continued

Item Number	Low (N=67)			Medium (N=113)			High (N=63)			Total Group (N=243)		
	1	2	3	1	2	3	1	2	3	1	2	3
41	3	13	83	2	0	97	0	6	94	2	5	93
42	10	18	72	15	79	65	5	21	75	11	20	69
43	5	34	61	7	13	81	6	21	73	6	20	73
44	7	45	48	6	22	72	8	37	56	6	32	61
45	10	23	57	4	14	82	8	21	71	6	21	73
46	69	15	16	87	8	6	78	16	6	80	12	9
47	10	59	31	14	40	45	10	62	28	12	52	37
48	2	41	57	6	19	73	8	44	48	6	31	63
49	0	35	65	6	19	73	5	44	52	4	30	65
50	5	44	51	18	24	57	22	38	40	15	33	51
51	7	38	56	6	21	71	5	38	57	6	30	64
52	10	31	59	6	19	75	6	33	60	7	26	67
53	10	48	43	7	22	69	13	46	41	9	36	55

Table 57

Grade 9

Career Education Objectives Questionnaire

Implementation Year 2

Means and Standard Deviations of Pupil Responses to Items by Implementation Level and for Total Group

Item Number	Low (N=55)		Medium (N=95)		High (N=85)		Total Group (N=235)	
	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.
1	2.78	.46	2.58	.52	2.33	.61	2.54	.56
2	2.76	.47	2.77	.47	2.60	.58	2.71	.52
3	2.50	.64	2.66	.50	2.46	.57	2.55	.56
4	2.45	.72	2.53	.56	2.44	.67	2.48	.64
5	2.40	.71	2.35	.70	2.21	.73	2.31	.71
6	2.73	.56	2.75	.50	2.58	.66	2.68	.58
7	2.25	.80	2.35	.71	2.17	.78	2.26	.76
8	2.38	.68	2.25	.60	2.35	.61	2.32	.62
9	2.47	.66	2.48	.62	2.31	.70	2.42	.66
10	2.17	.64	2.15	.62	1.99	.69	2.10	.65
11	2.35	.70	2.41	.68	2.29	.69	2.35	.69
12	2.55	.67	2.59	.54	2.20	.66	2.44	.64
13	2.84	.46	2.93	.26	2.89	.38	2.89	.36
14	2.70	.57	2.68	.55	2.49	.67	2.62	.61
15	2.33	.64	2.17	.70	1.93	.70	2.12	.70
16	2.49	.69	2.63	.57	2.60	.56	2.59	.60
17	1.34	.74	2.04	.80	1.67	.70	1.86	.76
18	2.13	.79	2.05	.75	2.09	.66	2.08	.73
19	2.25	.67	2.20	.69	2.09	.64	2.17	.67
20	2.60	.60	2.67	.49	2.49	.65	2.59	.58
21	2.73	.53	2.69	.55	2.50	.59	2.63	.57
22	2.26	.73	2.29	.71	2.33	.63	2.30	.69
23	2.35	.73	2.42	.63	2.34	.61	2.37	.65
24	2.47	.66	2.53	.60	2.40	.56	2.47	.60
25	2.50	.67	2.45	.68	2.28	.75	2.40	.71
26	2.60	.60	2.49	.62	2.37	.69	2.47	.64
27	2.43	.69	2.35	.70	2.47	.57	2.41	.65
28	2.93	.26	2.83	.41	2.77	.45	2.83	.40
29	2.55	.66	2.71	.50	2.54	.63	2.61	.59
30	2.87	.39	2.81	.42	2.83	.41	2.83	.41
31	2.87	.39	2.88	.32	2.88	.36	2.88	.35
32	2.91	.29	2.88	.38	2.85	.40	2.88	.37
33	2.13	.64	2.28	.63	2.19	.59	2.21	.62
34	2.25	.84	2.25	.70	2.21	.71	2.24	.74
35	2.51	.57	2.44	.65	2.40	.68	2.44	.64

Table 57 continued

Item Number	Low (N=55)		Medium (N=95)		High (N=85)		Total Group (N=235)	
	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.
36	2.71	.57	2.68	.53	2.75	.49	2.71	.52
37	2.15	.80	2.32	.75	2.06	.69	2.18	.75
38	2.58	.60	2.57	.60	2.46	.69	2.53	.63
39	2.36	.62	2.34	.70	2.46	.67	2.39	.67
40	2.20	.62	2.27	.72	2.47	.70	2.33	.70
41	2.98	.13	2.94	.29	2.93	.31	2.94	.27
42	2.49	.72	2.36	.71	2.37	.78	2.39	.74
43	2.62	.62	2.55	.61	2.71	.60	2.62	.61
44	2.44	.63	2.55	.56	2.49	.59	2.50	.59
45	2.38	.76	2.61	.67	2.52	.71	2.52	.71
46	1.35	.64	1.27	.59	1.37	.68	1.32	.63
47	2.35	.76	2.37	.62	2.27	.65	2.33	.66
48	2.58	.66	2.67	.55	2.67	.55	2.65	.58
49	2.67	.64	2.64	.60	2.76	.43	2.69	.56
50	2.41	.77	2.35	.71	2.49	.68	2.41	.71
51	2.64	.59	2.69	.53	2.67	.55	2.67	.55
52	2.67	.61	2.60	.55	2.51	.63	2.58	.60
53	2.38	.71	2.54	.56	2.48	.61	2.48	.62

Table 58

Grade 9

Career Education Objectives Questionnaire

Implementation Year 2

Proportion of Pupils Endorsing Each Alternative on Each Item by Implementation Level and for Total Group

Item Number	Low (N=55)			Medium (N=95)			High (N=85)			Total Group (N=235)		
	1	2	3	1	2	3	1	2	3	1	2	3
1	2	18	80	1	40	59	7	51	42	3	39	58
2	2	20	78	2	19	79	5	31	64	3	24	74
3	7	35	57	1	32	67	4	47	49	3	38	58
4	13	29	58	3	40	56	10	37	54	8	36	56
5	13	35	53	13	40	47	18	43	39	15	40	46
6	5	16	78	3	19	78	10	23	68	6	20	74
7	22	31	47	14	38	48	23	37	40	19	36	45
8	11	40	49	8	58	34	7	51	42	9	51	40
9	9	35	56	6	39	55	13	42	45	9	39	52
10	13	57	30	13	59	28	24	53	23	17	57	27
11	13	40	47	11	37	52	13	45	42	12	41	47
12	9	26	64	2	37	61	13	54	33	8	40	52
13	4	9	87	0	7	93	2	6	92	2	7	91
14	6	19	76	4	23	72	10	32	58	6	25	68
15	9	49	42	17	49	34	28	51	21	19	50	31
16	11	29	60	4	28	67	4	32	64	6	30	65
17	36	44	20	29	37	34	46	41	13	37	40	23
18	25	36	38	25	44	31	18	56	26	23	47	31
19	13	49	38	16	48	36	17	58	25	15	52	32
20	5	29	65	1	31	68	8	35	57	5	32	64
21	4	20	76	4	22	74	5	40	55	4	28	68
22	17	41	43	15	41	44	9	50	41	13	44	43
23	15	36	49	7	43	49	7	52	41	9	45	46
24	9	35	56	5	37	58	4	53	43	6	42	52
25	9	31	59	11	34	56	18	36	46	13	34	53
26	5	29	65	6	38	55	12	39	49	8	36	56
27	11	35	54	13	39	48	4	46	51	9	41	50
28	0	7	93	1	15	84	1	20	79	0	15	84
29	9	27	64	2	25	73	7	31	61	6	28	67
30	2	9	89	1	17	82	1	14	85	1	14	85
31	2	9	89	0	12	88	1	10	89	0	10	89
32	0	9	91	2	7	91	1	13	86	1	10	89
33	15	58	27	10	53	37	10	61	29	11	57	32
34	25	24	51	15	45	40	17	45	38	18	40	42
35	4	42	55	8	39	53	11	38	51	8	39	53

Table 58 continued

Item Number	Low (N=55)			Medium (N=95)			High (N=85)			Total Group (N=235)		
	1	2	3	1	2	3	1	2	3	1	2	3
36	5	18	76	3	25	72	2	20	77	3	22	75
37	25	35	40	17	35	48	20	53	27	20	41	39
38	5	31	64	5	33	62	11	33	57	7	32	61
39	7	49	44	13	40	47	10	35	55	10	41	49
40	11	58	31	16	41	43	12	29	59	13	41	46
41	0	2	98	1	4	95	1	5	94	0	4	95
42	13	25	62	14	37	49	18	27	55	15	31	54
43	7	24	69	6	33	61	7	15	78	7	24	69
44	7	42	51	3	38	59	5	41	54	5	40	55
45	16	29	55	11	18	72	13	23	65	13	22	65
46	75	16	9	80	13	7	74	15	11	77	14	9
47	17	31	52	7	48	44	11	51	38	11	45	44
48	9	24	67	4	24	72	4	26	70	5	25	70
49	9	15	76	6	23	71	0	24	76	5	21	74
50	17	26	57	14	38	48	10	30	59	13	32	54
51	5	25	69	3	24	72	4	26	70	4	25	71
52	7	18	75	3	34	63	7	35	58	6	30	64
53	13	36	51	3	39	57	6	40	54	7	39	55

Table 59

Grade 9

Career Education Objectives Questionnaire

Implementation Year 1 and 2

Means and Standard Deviations of Pupil Responses
to Items by Implementation Level and for Total Group

Item Number	Low (N=122)		Medium (N=208)		High (N=148)		Total Group (N=478)	
	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.
1	2.68	.50	2.59	.51	2.33	.57	2.53	.54
2	2.72	.52	2.79	.45	2.65	.56	2.73	.51
3	2.53	.58	2.63	.53	2.48	.57	2.55	.56
4	2.40	.72	2.51	.62	2.46	.65	2.47	.65
5	2.38	.71	2.38	.71	2.32	.71	2.36	.71
6	2.68	.57	2.81	.46	2.65	.61	2.73	.54
7	2.33	.72	2.40	.69	2.25	.74	2.34	.72
8	2.41	.63	2.43	.60	2.27	.63	2.37	.62
9	2.46	.64	2.63	.58	2.28	.64	2.48	.63
10	2.22	.65	2.25	.61	2.05	.67	2.18	.64
11	2.38	.65	2.52	.62	2.30	.65	2.42	.64
12	2.47	.68	2.63	.54	2.28	.61	2.48	.62
13	2.79	.49	2.88	.35	2.87	.43	2.86	.41
14	2.65	.58	2.71	.52	2.53	.63	2.64	.57
15	2.28	.64	2.09	.66	2.03	.64	2.12	.65
16	2.53	.62	2.67	.53	2.62	.54	2.62	.56
17	1.90	.68	2.04	.73	1.74	.69	1.91	.72
18	2.21	.70	2.28	.74	2.10	.68	2.21	.72
19	2.25	.64	2.30	.70	2.14	.63	2.24	.67
20	2.61	.57	2.71	.50	2.48	.62	2.61	.57
21	2.69	.56	2.75	.51	2.64	.54	2.70	.53
22	2.26	.70	2.40	.65	2.32	.59	2.34	.64
23	2.43	.66	2.52	.62	2.29	.61	2.43	.63
24	2.40	.63	2.53	.61	2.34	.64	2.44	.63
25	2.47	.64	2.44	.67	2.25	.73	2.39	.69
26	2.48	.60	2.50	.59	2.31	.63	2.43	.61
27	2.41	.62	2.47	.68	2.49	.55	2.46	.63
28	2.84	.39	2.86	.39	2.76	.44	2.82	.41
29	2.61	.62	2.67	.52	2.66	.56	2.65	.56
30	2.82	.43	2.89	.34	2.84	.40	2.86	.38

Table 59 continued

Item Number	Low (N=122)		Medium (N=208)		High (N=148)		(N=478)	
	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.
31	2.81	.47	2.91	.32	2.89	.35	2.88	.38
32	3.84	.39	2.92	.32	2.86	.36	2.88	.35
33	2.10	.62	2.34	.61	2.18	.61	2.23	.62
34	2.23	.75	2.32	.69	2.10	.72	2.23	.72
35	2.50	.60	2.37	.72	2.41	.66	2.42	.67
36	2.74	.51	2.70	.57	2.71	.51	2.71	.54
37	2.19	.70	2.36	.72	2.08	.71	2.23	.72
38	2.53	.61	2.64	.57	2.47	.66	2.56	.61
39	2.46	.65	2.45	.69	2.53	.63	2.48	.66
40	2.34	.65	2.41	.69	2.38	.72	2.38	.69
41	2.89	.37	2.95	.28	2.93	.28	2.93	.30
42	2.56	.69	2.43	.73	2.51	.71	2.49	.71
43	2.59	.61	2.65	.60	2.69	.60	2.65	.60
44	2.43	.62	2.61	.57	2.49	.61	2.53	.60
45	2.43	.71	2.70	.59	2.57	.68	2.59	.66
46	1.41	.71	1.23	.55	1.33	.64	1.31	.63
47	2.28	.68	2.34	.66	2.23	.62	2.89	.66
48	2.57	.59	2.68	.57	2.55	.60	2.61	.59
49	2.66	.56	2.66	.60	2.63	.53	2.65	.56
50	2.43	.68	2.38	.74	2.35	.74	2.38	.72
51	2.56	.61	2.67	.57	2.60	.57	2.62	.58
52	2.58	.65	2.65	.56	2.52	.63	2.59	.61
53	2.35	.68	2.58	.59	2.40	.65	2.47	.64

Table 60

Grade 9

Career Education Objectives Questionnaire
Implementation Year 1 and 2
Proportion of Pupils Endorsing Each Alternative
on Each Item by Implementation Level and for Total Group

Number	Low (N=122)			Medium (N=208)			High (N=148)			Total Group (N=478)		
	1	2	3	1	2	3	1	2	3	1	2	3
1	2	29	70	0	40	60	5	57	38	2	42	55
2	3	21	76	2	17	81	4	27	69	3	21	76
3	4	39	57	2	33	65	3	45	51	3	3	59
4	13	33	54	6	36	58	9	37	54	9	35	56
5	13	36	51	14	35	51	14	39	47	14	37	50
6	5	21	74	3	13	84	7	22	71	5	18	77
7	15	38	48	12	36	52	18	39	43	14	37	48
8	8	44	48	5	46	49	10	53	37	7	48	45
9	8	9	53	5	27	68	10	51	39	7	37	55
10	12	53	34	9	57	34	20	55	25	13	56	31
11	9	44	47	7	34	59	10	50	40	9	41	50
12	10	32	57	3	31	66	8	55	37	6	39	55
13	3	14	82	0	10	89	3	6	90	2	10	88
14	5	25	70	3	24	74	8	32	61	5	26	69
15	10	51	38	17	56	26	19	59	22	16	56	28
16	7	33	60	3	27	70	3	33	65	4	30	66
17	2	53	19	25	47	29	39	47	14	30	48	22
18	16	47	37	17	37	46	18	54	28	17	45	38
19	11	53	36	14	42	44	14	59	28	13	50	37
20	4	31	65	2	25	73	7	38	55	4	31	65
21	5	20	75	3	19	78	3	31	67	4	23	74
22	15	45	40	9	42	49	6	56	38	9	47	44
23	9	38	52	6	35	59	8	55	37	8	42	50
24	8	44	48	6	35	59	9	48	43	7	41	51
25	8	37	55	10	36	54	17	40	42	12	38	51
26	5	42	53	5	41	54	9	51	40	6	44	49
27	7	46	47	10	32	58	3	46	51	7	40	53
28	0	15	85	1	11	88	0	22	77	1	15	84
29	7	26	68	2	28	70	4	26	70	4	27	69
30	2	15	84	0	9	90	1	13	86	1	12	87

Table 60 continued

Item Number	Low (N=122)			Medium (N=208)			High (N=148)			Total Group (N=478)		
	1	2	3	1	2	3	1	2	3	1	2	3
31	3	12	85	0	7	92	1	8	90	2	9	89
32	0	15	84	1	5	94	0	12	87	1	10	89
33	15	61	25	7	51	41	11	60	29	10	56	33
34	19	39	42	13	42	45	21	48	31	17	43	40
35	5	39	56	14	35	51	10	39	51	11	37	52
36	3	19	78	5	19	75	3	24	73	4	21	75
37	16	48	35	14	36	50	21	50	29	17	43	40
38	6	34	59	4	27	69	9	36	55	6	32	65
39	9	37	54	11	32	56	8	32	60	9	33	57
40	9	47	43	12	35	53	14	35	51	12	38	50
41	2	8	90	1	2	97	0	6	94	1	5	94
42	11	22	67	14	28	57	12	24	63	13	25	62
43	6	29	65	6	22	72	7	17	76	6	22	71
44	7	43	50	4	30	66	6	39	55	6	36	58
45	13	31	56	7	16	77	11	22	68	10	22	69
46	72	16	13	84	10	6	76	15	9	78	13	9
47	13	46	41	11	45	44	10	56	34	11	49	40
48	5	33	62	5	22	73	6	34	61	5	28	67
49	4	25	70	6	22	72	2	32	65	5	26	70
50	10	36	54	16	31	54	15	34	51	14	33	53
51	6	32	62	5	23	72	4	31	65	5	28	67
52	9	25	66	4	26	69	7	34	59	6	28	65
53	11	42	47	5	31	64	9	42	49	8	37	55

2. Work Values Inventory (Advanced Form). Table 61 shows the results of the analyses of variance for ninth-grade pupils for Implementation Year, Implementation Level and Interaction of Implementation Year and Implementation Level.

a. Second year pupils scored higher on 22 of the 45 items. First year pupils scored higher on 23 (Chi-Square = 0.00).

b. A significant P value of .20 or less for Implementation Year was found on 18 of the 45 items.

(1) A $P \leq .20$ was found on 5 of these items (Numbers 1, 2, 5, 7, 14) in favor of second year pupils.

(2) A significant P value of .20 or less was found on 13 of these items (Numbers 4, 9, 10, 11, 19, 22, 23, 26, 27, 35, 37, 41) in favor of first year pupils.

c. A significant P value of .20 or less for Implementation Level was found 17 times out of the 45 items.

(1) High Implementation Level pupils scored highest on 5 of these Items (Numbers 8, 19, 26, 35, 36).

(2) Medium Implementation Level pupils scored highest on 9 of these items (Numbers 1, 2, 6, 7, 15, 17, 28, 31, 38).

(3) Low Implementation Level pupils scored highest on 3 of these items (Numbers 24, 37, 41).

d. The Interaction of Implementation Year and Implementation Level was found to be significant ($P \leq .20$) for 15 of the 45 items (Numbers 3, 4, 5, 8, 11, 12, 13, 15, 16, 19, 21, 23, 32, 36, 38).

e. Tables 62 and 63 are summary tables which show how many times each group ranked a certain way for Implementation Year by Implementation Level and for Implementation Level. Table 62 summarizes column 7 of Table 61 and Table 63 summarizes column 5 of Table 61 in the same manner as explained for Tables 6, 7, and 8(Third-Grade Pupils, Career Education Objectives Questionnaire).

f. Tables 64, 66 and 68 show means and standard deviations of pupil responses to items by Implementation Level and for the total group for Implementation Year 1, Implementation Year 2, and Implementation Years 1 and 2 taken together.

g. Proportions of pupils endorsing each alternative for each item by Implementation Level and for the total group for Implementation Year 1, Implementation Year 2, and Implementation Years 1 and 2 taken together are presented in Tables 65, 67, and 69.

Table 61

Grade 9
Analyses of Variance
A Comparison of Implementation Years and Implementation Levels for Work Values Inventory

Item Number	Comparison of Implementation Years (A)		Which Year Higher	Comparison of Implementation Levels (B)		Descending Order of Levels[3]	Probability AxB [2]	Rank Order of Groups[1]
	F	P		F	P			1 2 3 4 5 6
1	5.99	0.01*	2	12.17	0.00*	M-L-H	0.38	5-2-4-3-1-6
2	3.02	0.08*	2	1.87	0.15*	M-L-H	0.66	5-2-6-3-1-4
3	0.03	0.86	1	1.38	0.25	L-H-M	0.11*	3-4-2-1-5-6
4	2.43	0.12*	1	1.25	0.29	L-M-H	0.08*	4-1-3-2-6-5
5	14.69	0.00*	2	1.10	0.33	H-L-M	0.19*	2-3-1-5-4-6
6	0.09	0.76	2	3.18	0.04*	M-L-H	0.55	3-2-5-4-1-6
7	2.93	0.08*	2	2.52	0.08*	M-L-H	0.32	5-2-6-1-3-4
8	1.48	0.22	1	2.66	0.07*	H-L-M	0.00*	5-3-2-1-6-4
9	3.35	0.06*	1	1.18	0.31	H-L-M	0.52	3-2-1-5-6-4
10	5.34	0.02*	1	0.77	0.47	H-M-L	0.48	3-1-2-6-5-4
11	2.77	0.09*	1	0.16	0.85	H-M-L	0.13*	5-1-2-3-6-4
12	0.21	0.65	1	0.88	0.42	H-M-L	0.00*	6-3-1-2-4-5
13	1.12	0.29	1	0.34	0.72	M-L-H	0.08*	3-1-6-4-5-2
14	2.09	0.14*	2	0.86	0.43	L-M-H	0.78	3-6-5-1-2-4
15	0.04	0.84	2	5.27	0.01*	M-L-	0.06*	2-1-6-4-3-5
16	0.59	0.45	2	0.81	0.45	M-L-H	0.01*	1-4-6-5-2-3
17	0.91	0.34	2	2.18	0.11*	M-H-L	0.64	5-3-4-6-1-2
18	1.25	0.26	1	0.19	0.83	M-H-L	0.83	2-1-3-6-5-4
19	2.18	0.13*	1	2.77	0.06*	H-L-M	0.17*	5-4-1-2-6-3
20	0.34	0.57	2	0.46	0.64	M-H-L	0.78	6-2-4-3-1-5
21	1.58	0.21	1	1.14	0.32	M-H-L	0.16*	1-5-3-6-2-4
22	4.80	0.03*	1	1.03	0.36	H-L-M	0.60	2-3-1-4-6-5
23	2.70	0.10*	1	0.26	0.78	M-H-L	0.05*	2-1-4-5-6-3
24	0.08	0.78	1	2.50	0.08*	L-M-H	0.96	1-4-5-2-3-6
25	1.08	0.30	1	0.96	0.39	L-M-H	0.23	3-2-4-1-5-6
26	8.05	0.00*	1	5.97	0.00*	H-M-L	0.55	4-3-1-6-5-2
27	3.33	0.06*	1	1.41	0.24	H-M-L	0.68	3-1-5-6-4-2
28	0.01	0.90	1	4.30	0.01*	M-L-H	0.33	2-3-6-4-1-5
29	0.02	0.90	2	0.58	0.57	H-M-L	0.99	6-4-2-3-5-1
30	0.34	0.57	2	1.28	0.28	M-H-L	0.28	6-1-5-4-3-2

Table 61 continued

Item Number	Comparison of Implementation Years (A)		Which Year Higher	Comparison of Implementation Levels (B)		Descending Order of Levels[3]	Probability AxB [2]	Rank Order of Groups[1]
	F	P		F	P			1 2 3 4 5 6
31	0.64	0.43	2	3.49	0.03*	M-H-L	0.06*	6-1-5-4-3-2
32	0.00	0.99	2	0.39	0.68	M-H-L	0.14*	3-1-6-5-4-2
33	0.00	0.95	2	1.53	0.22	L-M-H	0.57	3-2-6-1-4-5
34	0.29	0.60	2	1.40	0.25	M-L-H	0.24	5-1-6-4-2-3
35	3.57	0.06	1	2.71	0.07*	H-M-L	0.49	5-2-1-6-3-4
36	0.15	0.70	1	1.76	0.17*	H-M-L	0.17*	4-2-3-6-5-1
37	9.44	0.00*	2	2.77	0.06*	L-M-H	0.21	4-5-6-1-2-3
38	0.03	0.03*	2	4.84	0.01*	M-L-H	0.08*	3-1-6-5-2-4
39	0.40	0.53	1	0.20	0.82	M-H-L	0.76	5-2-1-4-3-6
40	1.48	0.22	2	0.31	0.74	H-L-M	0.78	5-6-4-1-3-2
41	2.61	0.10*	2	3.12	0.04*	L-M-H	0.43	2-5-6-3-1-4
42	0.12	0.73	2	0.81	0.45	M-L-H	0.46	5-3-2-4-1-6
43	0.05	0.81	1	0.88	0.42	M-H-L	0.25	6-1-4-3-5-2
44	0.11	0.74	1	0.36	0.75	M-H-L	0.71	6-2-1-4-3-5
45	1.21	0.27	2	1.03	0.36	L-M-H	0.85	3-4-6-2-1-5

*Statistically significant difference ($P \leq .20$) was observed between the means of the two groups.

Table 62

Grade 9

Work Values Inventory (Advanced Form)

How Many Groups Attained A Rank From Highest to Lowest

Group \ Rank Order	1 Highest	2	3	4	5	6 Lowest
IY1, IL1	3	7	12	4	12	7
IY1, IL2	14	12	8	6	3	2
IY1, IL3	9	6	4	6	6	14
IY2, IL1	8	5	7	11	6	8
IY2, IL2	9	6	9	5	9	7
IY2, IL3	2	9	5	13	9	7

IY=Implementation Year

IL=Implementation Level

1=Low
2=Medium
3=High

Table 63

Grade 9

Work Values Inventory (Advanced Form)

How Many Times an Implementation Level Ranked 1st, 2nd, or 3rd

	1	2	3
Lo	9	17	19
Med	22	16	7
Hi	14	12	19

Table 64

Grade 9

Work Values Inventory Questionnaire

Implementation Year 1

Means and Standard Deviations of Pupil Responses
to Items by Implementation Level and for Total Group

Item Number	Low (N=67)		Medium (N=113)		High (N=63)		Total Group (N=243)	
	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.
1	3.49	1.02	3.82	1.04	3.10	1.13	3.53	1.10
2	4.20	.97	4.32	.79	4.03	1.05	4.21	.92
3	4.06	.95	4.00	1.18	4.19	1.00	4.07	1.07
4	3.62	1.05	3.80	1.05	3.66	1.01	3.71	1.04
5	4.37	.84	4.03	1.15	4.38	.82	4.22	1.00
6	3.66	1.09	3.82	1.12	3.65	1.15	3.73	1.19
7	2.68	1.31	2.93	1.32	2.52	1.39	2.75	1.34
8	2.63	1.21	2.80	1.34	3.03	1.20	2.82	1.27
9	4.52	.80	4.53	.81	4.73	.57	4.58	.75
10	4.64	.70	4.71	.66	4.65	.60	4.67	.65
11	4.09	1.04	4.35	.94	4.27	.81	4.26	.94
12	3.89	1.05	4.17	.92	4.40	.81	4.15	.95
13	4.37	.93	4.51	.76	4.21	.90	4.39	.85
14	3.03	1.22	2.91	1.26	2.94	1.09	2.95	1.20
15	3.89	.85	4.03	.96	3.45	.97	3.84	.96
16	3.78	1.01	3.54	1.21	3.25	1.06	3.53	1.13
17	4.20	.77	4.32	.84	4.25	.90	4.27	.84
18	4.46	.77	4.56	.75	4.49	.59	4.52	.71
19	4.57	.68	4.63	.70	4.79	.63	4.66	.68
20	3.54	1.13	3.72	1.21	3.63	.94	3.65	1.12
21	4.12	.96	4.08	.97	4.10	.73	4.09	.91
22	4.62	.65	4.56	.76	4.76	.53	4.63	.68
23	3.74	.96	3.90	.98	3.57	.89	3.77	.96
24	3.78	.98	3.70	1.19	3.51	1.03	3.67	1.09
25	3.78	1.11	3.90	1.09	3.78	.94	3.84	1.05
26	4.20	1.02	4.36	.87	4.48	.80	4.34	.90
27	4.45	.75	4.50	.80	4.52	.72	4.49	.76
28	4.28	.84	4.23	.90	3.97	1.04	4.17	.93
29	3.71	1.34	3.74	1.09	3.84	1.14	3.76	1.18
30	4.09	1.07	4.41	.84	4.19	.88	4.26	.93

Table 64 continued

Item Number	Low (N=67)		Medium (N=113)		High (N=63)		Total Group (N=243)	
	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.
31	3.80	.97	4.32	.84	3.98	.92	4.08	.92
32	3.80	1.31	3.94	1.09	3.62	1.05	3.81	1.15
33	3.72	1.13	3.75	1.12	3.47	1.10	3.67	1.12
34	4.17	.88	4.32	.88	3.97	.92	4.18	.90
35	4.57	.73	4.66	.65	4.81	.53	4.68	.65
36	4.35	.89	4.50	.90	4.40	.81	4.43	.88
37	3.28	1.15	3.26	1.14	2.83	1.00	3.15	1.12
38	4.03	.90	4.31	.83	2.78	1.02	4.09	.93
39	4.54	.77	4.62	.73	4.65	.60	4.60	.71
40	3.25	1.34	3.15	1.36	3.37	1.25	3.24	1.32
41	3.45	1.17	3.18	1.39	3.00	1.20	1.29	1.29
42	4.08	1.00	4.15	1.15	4.16	1.10	4.13	1.09
43	4.08	.93	4.38	.83	4.17	.81	4.24	.86
44	4.20	.89	4.31	.86	4.35	.74	4.29	.84
45	3.97	1.06	3.89	1.12	3.83	.94	3.90	1.05

Table 65

Grade 9

Work Values Inventory Questionnaire

Implementation Year 1
Proportion of Pupils Endorsing Each Alternative
on Each Item by Implementation Level and for Total Group

Item Number	Low (N=67)					Medium (N=113)					High (N=63)					Total Group (N=243)				
	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
1	6	8	29	45	12	3	8	22	38	29	13	13	35	32	8	6	9	27	38	19
2	0	8	15	26	51	0	2	8	42	47	2	6	24	24	44	0	5	15	32	47
3	0	5	28	25	43	4	9	18	21	48	3	3	13	33	48	3	6	19	25	47
4	3	10	33	30	24	3	8	24	36	29	3	8	30	38	21	3	9	28	35	26
5	0	5	9	31	55	2	13	15	25	48	2	2	7	38	52	1	8	10	30	51
6	5	8	31	31	26	4	9	24	30	34	5	8	37	19	32	4	8	29	27	31
7	26	17	31	15	11	18	20	29	17	16	32	24	16	17	11	24	20	26	17	13
8	18	32	26	14	9	24	19	23	24	11	13	19	33	23	13	19	23	26	21	11
9	2	2	5	28	64	2	2	3	28	65	0	0	6	14	79	1	1	4	24	69
10	0	2	8	16	75	0	0	3	17	78	0	0	6	22	71	0	0	5	18	76
11	2	11	8	37	43	0	6	10	25	59	2	0	13	41	33	1	6	10	33	51
12	3	2	27	20	38	0	4	18	32	45	0	6	5	32	57	1	4	20	29	47
13	2	3	12	23	60	0	0	8	27	64	2	3	13	38	44	1	2	10	29	58
14	14	17	33	23	13	18	17	32	20	12	13	17	40	24	6	16	17	34	22	11
15	0	5	28	42	26	0	10	15	38	37	3	13	31	42	11	0	9	23	40	27
16	2	9	26	35	28	7	14	23	30	26	6	14	40	27	13	5	13	28	31	23
17	0	2	17	42	40	0	3	15	29	53	2	3	11	37	48	0	3	15	34	48
18	2	0	8	32	58	0	2	4	27	67	0	0	5	41	54	0	0	5	32	61
19	0	0	11	22	68	0	0	4	23	71	2	0	2	11	86	0	0	5	19	74
20	5	14	28	31	23	7	9	23	28	33	2	10	30	41	17	5	11	26	32	26
21	2	5	17	34	43	4	2	15	42	38	0	2	17	51	30	2	3	16	42	37
22	0	0	9	20	71	0	0	8	22	69	0	0	5	14	81	0	0	7	19	73
23	2	6	34	34	25	2	6	24	37	32	3	6	32	48	11	2	6	29	39	24
24	0	12	23	38	26	8	8	21	35	29	3	13	32	35	17	4	10	24	36	25
25	2	11	31	20	36	4	7	21	32	36	2	8	24	44	22	3	8	25	32	32
26	3	3	15	28	51	2	2	9	34	54	2	0	10	27	62	2	2	11	30	55
27	2	0	6	37	55	2	0	5	30	63	0	2	8	27	63	1	0	6	31	61
28	2	0	16	34	48	2	5	5	45	44	5	2	21	37	35	3	3	12	40	43
29	9	12	15	25	38	5	9	20	40	26	6	5	21	35	33	6	9	19	34	32
30	2	11	11	31	46	0	0	14	23	61	0	3	21	30	46	0	4	15	27	53

Table 65 continued

Item Number	Low (N=67)					Medium (N=113)					High (N=63)					Total Group (N=243)				
	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
31	2	6	31	34	28	0	3	10	37	50	0	5	29	30	37	0	4	21	34	40
32	9	9	14	28	40	6	4	15	40	35	6	5	29	41	19	7	6	19	37	32
33	3	11	29	25	32	6	9	17	41	27	5	13	32	31	19	5	10	25	34	26
34	2	2	17	37	42	4	0	5	43	48	2	5	19	44	30	3	2	12	42	42
35	0	2	9	20	69	0	0	7	17	75	0	2	2	11	86	0	1	6	16	76
36	2	5	5	35	54	0	7	2	22	68	2	0	11	32	56	1	4	5	28	61
37	8	17	31	29	15	9	15	31	32	13	13	19	32	24	2	9	17	34	29	11
38	0	5	25	34	37	0	0	14	34	50	3	8	22	41	25	1	4	19	36	40
39	2	0	8	25	66	0	2	3	23	71	0	0	6	22	71	0	0	5	23	70
40	14	15	25	25	22	17	14	23	26	19	11	11	29	29	21	15	14	24	26	20
41	8	11	30	31	20	17	13	26	20	23	13	19	38	16	14	13	14	30	22	20
42	2	5	22	28	44	5	7	10	26	53	3	8	10	29	51	3	6	13	27	50
43	2	5	16	41	37	0	2	11	32	55	2	2	11	49	37	1	3	12	39	45
44	3	0	13	42	42	0	2	14	31	52	0	2	11	38	49	1	1	13	36	48
45	3	5	25	28	40	6	5	18	36	35	2	5	30	37	27	4	5	23	34	34

Table 66

Grade 9
Work Values Inventory Questionnaire
Implementation Year 2
Means and Standard Deviations of Pupil Responses to Items by Implementation Level and for Total Group

Item Number	Low (N=55)		Medium (N=95)		High (N=85)		Total Group (N=235)	
	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.
1	3.63	1.00	3.97	.92	3.52	1.04	3.73	1.00
2	4.30	.86	4.41	.87	4.29	.94	4.34	.89
3	4.31	1.04	3.97	1.09	3.92	1.06	4.03	1.08
4	3.80	.94	3.43	1.28	3.34	1.31	3.48	1.23
5	3.87	.97	3.91	.99	3.87	1.20	3.88	1.06
6	3.65	1.19	4.01	1.07	3.56	1.11	3.77	1.13
7	3.13	1.26	2.93	1.25	2.72	1.31	2.90	1.28
8	3.06	1.12	2.31	1.26	2.67	1.25	2.61	1.25
9	4.47	.89	4.41	.83	4.48	.80	4.45	.83
10	4.43	.79	4.50	.79	4.61	.64	4.52	.74
11	4.17	.99	3.95	1.13	4.12	1.08	4.06	1.08
12	4.22	.82	4.12	.87	4.00	.98	4.10	.90
13	4.22	.86	4.22	1.01	4.38	.90	4.28	.94
14	3.26	1.10	3.14	1.27	2.99	1.24	3.11	1.22
15	3.78	.92	3.88	.90	3.76	.96	3.82	.93
16	3.43	1.19	3.70	1.04	3.69	1.02	3.64	1.07
17	4.17	.83	4.42	.68	4.40	.76	4.36	.75
18	4.41	.77	4.41	.88	4.45	.78	4.42	.82
19	4.65	.70	4.40	.90	4.64	.67	4.54	.79
20	3.70	1.04	3.75	1.09	3.62	1.13	3.69	1.09
21	3.78	.90	4.11	.96	4.08	.88	4.02	.92
22	4.52	.75	4.45	.84	4.50	.87	4.48	.83
23	3.52	1.00	3.51	1.12	3.73	.83	3.59	1.00
24	3.72	1.00	3.71	.93	3.48	1.12	3.63	1.02
25	3.93	1.11	3.64	1.22	3.57	1.18	3.68	1.18
26	3.89	1.02	4.02	1.03	4.36	.86	4.11	.98
27	4.26	.87	4.33	.77	4.48	.70	4.37	.78
28	4.09	.87	4.36	.76	4.00	1.08	4.17	.92
29	3.74	.89	3.73	1.17	3.86	.96	3.78	1.03
30	4.26	.83	4.27	.88	4.31	.85	4.28	.85

Table 66 continued

Item Number	Low (N=55)		Medium (N=95)		High (N=85)		Total Group (N=235)	
	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.
31	4.09	.87	4.12	.88	4.10	.91	4.10	.89
32	3.69	1.01	3.76	1.11	3.92	1.05	3.80	1.07
33	3.78	1.14	3.60	1.11	3.58	1.10	3.63	1.11
34	4.19	.99	4.21	.98	4.20	.71	4.20	.89
35	4.44	.86	4.63	.67	4.58	.81	4.57	.77
36	4.24	1.03	4.33	.94	4.59	.74	4.40	.90
37	3.46	.88	3.45	1.12	3.39	.97	3.43	1.01
38	3.89	.88	4.19	1.07	4.09	1.00	4.08	1.01
39	4.56	.86	4.58	.71	4.54	.82	4.56	.79
40	3.44	1.22	3.37	1.15	3.39	1.25	3.40	1.20
41	3.44	1.14	3.55	1.08	3.21	1.24	1.16	1.16
42	4.15	1.08	4.32	.80	4.02	1.06	4.17	.97
43	4.19	.93	4.16	.90	4.21	.81	4.19	.87
44	4.26	.89	4.29	.75	4.24	.89	4.26	.83
45	4.06	.81	4.08	.99	3.88	1.07	4.00	.98

Table 67

Grade 9
Work Values Inventory Questionnaire
Implementation Year 2
Proportion of Pupils Endorsing Each Alternative on Each Item by Implementation Level and for Total Group

Item Number	Low (N=67)					Medium (N=113)					High (N=63)					Total Group (N=243)				
	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
1	4	6	35	35	20	1	6	18	44	31	5	11	27	42	15	3	8	25	41	23
2	2	2	9	39	48	2	1	9	28	59	1	6	8	32	53	2	3	9	32	54
3	2	7	9	20	61	4	4	22	29	40	2	7	25	28	38	3	6	20	27	44
4	2	6	28	41	24	11	13	24	28	24	14	9	26	29	21	10	10	26	32	23
5	2	9	15	48	26	2	7	19	41	31	7	6	18	31	38	4	7	18	39	32
6	6	10	29	25	31	3	7	15	34	40	5	11	32	29	24	4	9	24	30	32
7	15	15	26	31	13	16	22	27	23	12	22	24	27	14	13	18	21	27	22	12
8	7	26	31	24	11	34	29	16	15	6	24	20	29	20	7	24	25	24	19	8
9	4	0	4	30	62	0	4	9	27	59	1	1	8	27	62	1	2	8	28	61
10	2	0	7	35	56	0	3	9	23	65	0	1	5	26	68	0	2	7	27	64
11	0	9	13	30	48	4	7	19	28	41	5	4	13	32	46	3	6	15	30	45
12	0	2	19	35	44	1	3	16	43	37	2	4	22	35	36	1	3	19	38	39
13	0	6	11	39	44	4	3	7	37	48	1	5	7	29	58	2	4	8	35	51
14	7	15	35	30	13	14	16	31	23	17	13	25	26	24	13	12	19	30	25	15
15	0	9	28	39	24	2	3	24	45	26	1	8	28	38	25	1	6	27	41	25
16	9	11	26	35	19	2	10	31	31	27	4	8	26	40	22	4	9	28	35	23
17	2	2	10	50	37	0	2	4	43	51	1	0	9	36	53	0	1	7	42	48
18	2	0	6	41	52	2	2	7	29	60	0	4	7	31	59	1	2	7	32	58
19	2	0	2	24	72	1	3	13	21	62	0	2	4	22	72	0	2	7	22	68
20	4	4	39	26	28	4	7	27	32	29	5	12	26	32	26	4	8	29	30	28
21	0	6	37	31	26	2	2	22	31	43	0	4	24	34	39	0	3	26	32	38
22	2	0	4	33	61	2	0	10	27	61	2	1	7	23	67	2	0	7	27	63
23	6	7	30	44	13	7	10	30	33	21	1	4	33	45	17	4	7	31	40	17
24	2	7	33	31	26	2	7	29	42	20	6	14	24	38	18	3	10	28	38	20
25	6	4	20	33	37	7	11	24	26	31	8	11	17	43	20	7	9	21	34	29
26	4	6	19	43	30	3	3	22	32	40	1	1	14	27	57	3	3	18	32	44
27	2	2	11	39	46	0	1	15	34	50	1	0	5	37	57	0	0	10	36	52
28	2	2	17	44	35	0	2	11	36	51	4	7	14	36	39	2	4	13	38	43
29	2	4	33	41	20	8	4	26	32	30	2	6	21	44	26	4	5	26	38	27
30	0	4	13	37	46	1	2	15	32	50	0	4	14	29	53	0	3	14	32	50

Table 67 continued

Item Number	Low (N=67)					Medium (N=113)					High (N=63)					Total Group (N=243)				
	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
31	0	6	17	41	37	0	3	23	33	41	0	6	19	35	40	0	5	20	35	40
32	4	4	37	31	24	3	12	21	34	30	4	5	23	34	35	3	7	25	33	31
33	4	11	22	30	33	4	11	30	29	25	6	10	25	39	20	5	10	27	33	25
34	2	6	13	31	48	2	3	16	28	50	0	0	17	46	37	1	3	16	35	45
35	2	0	13	22	63	1	0	4	24	71	1	1	10	14	73	1	0	8	20	70
36	6	0	9	35	50	1	4	13	24	58	0	2	7	20	71	2	3	10	25	61
37	2	9	41	37	11	7	15	21	42	15	4	10	44	29	13	4	12	34	36	14
38	2	2	28	43	26	4	3	13	27	52	2	6	12	38	41	3	4	16	35	42
39	4	0	2	26	69	0	2	7	23	68	2	1	2	28	66	2	1	4	25	68
40	9	11	28	30	22	7	16	27	32	18	10	12	32	22	24	8	14	29	28	21
41	7	13	24	39	17	4	12	27	36	20	14	14	25	35	14	8	13	26	36	17
42	6	2	11	34	47	1	1	11	38	48	5	4	14	40	38	4	2	12	38	44
43	2	2	17	33	46	2	1	16	38	42	0	5	9	46	40	1	3	14	40	42
44	0	4	19	26	52	0	2	11	43	44	1	3	15	33	48	0	3	14	35	47
45	0	4	19	46	31	2	7	12	40	40	2	11	16	38	33	2	7	15	41	35

Table 68

Grade 9

Work Values Inventory Questionnaire

Implementation Year 1 and 2

Means and Standard Deviations of Pupil Responses
to Items by Implementation Level and for Total Group

Item Number	Low (N=122)		Medium (N=112)		High (N=148)		Total Group (N=478)	
	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.
1	3.55	1.01	3.81	1.04	3.34	1.09	3.63	1.05
2	4.24	.92	4.31	.79	4.18	.99	5.29	.91
3	4.18	1.00	4.01	1.18	4.03	1.04	4.05	1.07
4	3.70	1.00	3.80	1.05	2.47	1.20	3.60	1.14
5	4.14	.93	4.02	1.15	4.08	1.08	4.05	1.04
6	3.66	1.13	3.81	1.12	3.60	1.12	3.75	1.12
7	2.88	1.30	2.94	1.33	2.64	1.35	2.82	1.31
8	2.82	1.18	2.82	1.36	2.82	1.24	2.71	1.27
9	4.50	.84	4.53	.81	4.59	.72	4.51	.79
10	4.54	.75	4.70	.66	4.63	.62	4.60	.70
11	4.13	1.01	4.36	.94	4.18	.97	4.16	1.02
12	4.04	.96	4.16	.92	4.17	.94	4.13	.93
13	4.30	.90	4.51	.76	4.30	.90	4.33	.90
14	3.14	1.17	2.93	1.26	2.97	1.17	3.03	1.21
15	3.84	.88	4.02	.96	3.63	.97	3.83	.94
16	3.62	1.10	3.55	1.21	3.51	1.06	3.58	1.10
17	4.19	.80	4.32	.84	4.34	.82	4.31	.79
18	4.44	.77	4.57	.75	4.47	.70	4.47	.77
19	4.61	.69	4.63	.70	4.70	.65	4.60	.74
20	3.61	1.09	3.71	1.21	3.63	1.05	3.67	1.10
21	3.97	.95	4.09	.97	4.09	.82	4.06	.92
22	4.57	.70	4.58	.75	4.61	.75	4.56	.76
23	3.64	.98	3.91	.98	3.66	.86	3.68	.98
24	3.76	.98	3.70	1.19	3.49	1.08	3.65	1.06
25	3.85	1.11	3.91	1.09	3.66	1.09	3.76	1.12
26	4.06	1.03	4.37	.86	4.41	.84	4.23	.95
27	4.36	.81	4.50	.80	4.50	.71	4.43	.77
28	4.19	.86	4.23	.90	3.99	1.06	4.17	.93
29	3.72	1.16	3.73	1.09	3.85	1.04	3.77	1.11
30	4.17	.97	4.41	.85	4.26	.86	4.27	.89

Table 68 continued

Item Number	Low (N=122)		Medium (N=112)		High (N=148)		Total Group (N=478)	
	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.
31	3.93	.94	4.32	.84	4.05	.92	4.09	.90
32	3.75	1.18	3.93	1.09	3.79	1.06	3.81	1.11
33	3.75	1.13	3.74	1.12	3.53	1.10	3.65	1.11
34	4.18	.93	4.31	.89	4.10	.81	4.19	.89
35	4.51	.79	4.68	.63	4.68	.71	4.62	.71
36	4.30	.95	4.50	.91	4.50	.77	4.42	.89
37	3.36	1.04	3.24	1.13	3.14	1.01	3.29	1.07
38	3.97	.89	4.31	.83	3.95	1.02	4.08	.97
39	4.55	.81	4.62	.73	4.59	.73	4.58	.75
40	3.34	1.28	3.16	1.37	3.38	1.25	3.32	1.27
41	3.45	1.15	3.17	1.39	3.12	1.23	3.30	1.23
42	4.11	1.03	4.17	1.15	4.08	1.07	4.15	1.03
43	4.13	.93	4.39	.82	4.20	.81	4.21	.86
44	4.23	.89	4.33	.85	4.29	.83	4.28	.83
45	4.01	.95	3.88	1.12	3.86	1.01	3.95	1.02

Table 69

Grade 9

Work Values Inventory Questionnaire

Implementation Year 1 and 2

Proportion of Pupils Endorsing Each Alternative

on Each Item by Implementation Level and for Total Group

Item Number	Low (N=122)					Medium (N=112)					High (N=148)					Total Group (N=478)				
	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
1	5	7	32	40	16	3	9	22	38	29	8	12	31	37	12	5	9	26	40	21
2	0	5	13	32	50	0	2	9	42	47	1	6	15	28	49	1	4	12	32	51
3	0	6	19	23	51	4	10	17	21	49	3	5	20	30	42	3	6	20	26	45
4	3	8	31	35	24	3	[illegible]	24	35	30	10	9	27	33	21	6	9	27	33	24
5	0	7	12	39	42	2	13	13	25	47	5	4	13	34	44	3	8	14	34	42
6	5	9	30	28	28	4	9	24	30	34	5	9	34	25	27	4	9	27	29	32
7	21	16	69	23	12	18	19	29	17	16	26	24	22	16	12	21	21	26	19	13
8	13	29	29	18	10	23	19	23	24	11	19	20	31	21	10	22	24	25	20	9
9	3	0	4	29	63	2	2	3	28	66	0	0	7	22	69	1	2	6	26	65
10	0	0	8	25	66	0	0	3	17	78	0	0	5	24	70	0	1	6	23	70
11	0	10	10	34	45	0	6	10	24	60	3	2	13	36	46	2	6	13	31	48
12	2	2	29	27	41	0	4	18	32	45	1	5	15	34	45	1	3	19	33	43
13	0	4	12	30	53	0	0	8	27	63	1	4	9	33	52	2	3	9	32	54
14	11	16	34	26	13	17	17	33	20	13	13	22	32	24	10	14	18	32	23	13
15	0	7	28	40	25	0	10	15	38	37	2	10	29	39	19	1	8	25	40	26
16	5	10	26	35	24	7	14	22	31	26	5	11	32	34	18	5	11	28	33	23
17	0	2	14	45	38	0	3	15	29	53	1	1	10	36	51	0	2	11	38	48
18	2	0	7	36	55	0	2	4	26	67	0	2	6	35	57	1	2	6	32	59
19	0	0	7	23	70	0	0	4	23	71	0	1	3	18	78	0	1	6	21	71
20	4	9	33	29	25	7	10	23	28	33	3	11	28	36	22	4	9	28	31	27
21	0	5	26	33	35	4	2	14	42	38	0	3	21	41	35	1	3	21	37	37
22	0	0	7	26	66	0	0	7	22	69	1	0	6	19	73	1	0	7	23	68
23	3	7	32	39	19	2	6	23	37	32	2	5	33	46	14	3	6	30	39	21
24	0	10	28	35	26	8	8	20	36	29	5	14	27	37	18	4	10	26	37	23
25	3	8	26	26	36	4	7	20	33	37	5	10	20	44	21	5	9	23	33	30
26	3	4	17	34	41	2	2	8	34	54	1	0	12	27	59	2	2	15	31	49
27	2	0	8	38	51	2	0	5	30	62	0	0	6	33	60	1	0	8	34	56
28	2	0	16	39	42	2	5	5	45	43	4	5	17	36	38	2	3	13	39	43
29	6	8	24	32	30	5	9	21	40	25	4	5	21	40	29	5	7	23	36	29
30	0	8	12	34	46	0	0	15	23	60	0	3	17	29	50	0	4	15	30	51

Table 69 continued

Item Number	Low (N=122)					Medium (N=112)					High (N=148)					Total Group (N=478)				
	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
31	0	6	24	37	32	0	3	10	36	50	0	5	23	33	39	0	5	20	35	40
32	7	7	24	29	33	6	4	16	41	34	5	5	25	37	28	5	7	22	35	31
33	3	11	26	27	33	6	9	17	42	26	5	11	28	36	20	5	10	26	33	26
34	2	3	15	35	45	4	0	5	44	48	0	2	18	45	34	2	2	14	39	43
35	0	0	11	21	66	0	0	6	18	75	0	1	6	13	79	0	0	7	18	73
36	3	3	7	35	52	0	7	2	22	68	0	1	9	25	64	2	3	8	27	61
37	5	13	35	33	13	9	16	31	32	13	8	14	43	27	8	7	14	34	33	12
38	0	3	26	38	32	0	0	15	33	50	3	7	17	40	34	2	4	18	35	41
39	3	0	5	25	67	0	2	3	22	72	1	0	4	26	68	1	1	5	24	69
40	12	13	26	27	22	17	15	22	26	19	10	12	30	25	23	12	14	27	27	21
41	8	12	27	35	19	17	14	26	20	22	13	16	31	26	14	11	14	28	29	18
42	3	3	17	31	45	5	7	9	26	53	4	6	12	35	44	4	4	13	32	47
43	2	3	16	37	41	0	2	10	32	55	0	3	10	48	38	1	3	13	39	44
44	2	2	15	35	47	0	2	13	32	52	0	2	13	35	49	0	2	13	36	48
45	2	4	22	36	36	6	5	19	36	34	2	8	22	37	30	3	6	19	37	35

2

Eleventh-Grade Results

A. At this grade level, Implementation Year and Implementation Level were unspecified for both Experimental Teachers and pupils.

B. Eleventh-Grade Experimental Teachers. Tables 70 and 71 show results of frequency distributions for Teacher Career Education Participation Form and Career Education Objectives (Teacher Form). Means, standard deviations and proportions of teachers endorsing each alternative for each item are listed.

C. Eleventh-Grade Pupils. Tables 72 and 73 show results of frequency distributions for Career Education Objectives Questionnaire (Student: Advanced) and Work Value Inventory (Advanced). Means standard deviations and proportions of students endorsing each alternative for each item are listed.

Table 70

Grade 11

Experimental Group. Teacher Career Education Participation Form
(Implementation Year and Implementation Level Unspecified)
Means and Standard Deviations and Proportion of
Teachers Endorsing Each Alternative for Each Item
(N=10)

Item Number		S.D.	1	2	3	4
1	2.30	0.82	20	30	50	0
2	2.40	0.84	10	50	30	10
3	2.40	1.17	30	20	30	20
4	1.40	0.70	70	20	10	0
5	3.50	0.53	0	0	50	50
6	3.30	0.67	0	10	50	40
7	3.20	0.42	0	0	80	20
8	2.67	0.71	11	11	78	0
9	2.80	0.92	10	20	50	20
10	2.70	0.95	10	30	40	20
11	3.40	0.52	0	0	60	40
12	2.88	0.64	0	25	63	13
13	2.90	0.88	0	40	30	30
14	3.00	0.82	0	30	40	30
15	2.70	0.67	10	10	80	0
16	3.00	0.67	0	20	60	20
17	3.60	0.52	0	0	40	60
18	3.20	0.63	0	10	60	30
19	3.00	0.71	0	22	56	22
20	3.60	0.52	0	0	40	60
21	2.80	1.03	10	30	30	30
22	2.70	0.95	10	30	40	20
23	2.60	0.84	10	30	50	10
24	2.90	0.88	10	10	60	20
25	3.20	0.79	0	20	40	40
26	2.10	0.99	30	40	20	10
27	2.10	1.10	40	20	30	10

Table 71

Grade 11

Experimental Group. Career Education Objectives (Teacher Form) (Implementation Year and Implementation Level Unspecified) Means and Standard Deviations and Proportion of Teachers Endorsing Each Alternative for Each Item (N=10)

Item Number	Mean	S.D.	1	2	3	4
1	2.70	0.82	10	20	60	10
2	3.20	0.63	0	10	60	30
3	2.90	0.74	0	30	50	20
4	2.70	0.82	10	20	60	10
5	2.70	0.95	10	30	40	20
6	2.90	0.88	10	10	60	20
7	2.80	1.14	20	10	40	30
8	2.44	1.01	22	22	44	11
9	2.80	1.23	20	20	20	40
10	2.40	0.97	20	30	40	10
11	3.00	0.82	0	30	40	30
12	3.40	0.70	0	10	40	50
13	2.80	0.92	0	50	20	30
14	3.20	0.63	0	10	60	30
15	2.70	1.06	10	40	20	30
16	2.80	0.92	10	20	50	20
17	2.40	1.08	20	40	20	20
18	2.20	1.03	30	30	30	10
19	2.60	0.84	10	30	50	10
20	2.80	1.14	20	10	40	30

Table 71 continued

Item Number	Mean	S.D.	1	2	3	4
21	3.20	0.79	0	20	40	40
22	2.60	0.97	10	40	30	20
23	2.60	1.08	20	20	40	20
24	2.70	0.95	10	30	40	20
25	2.70	0.95	10	30	40	20
26	2.50	0.97	10	50	20	20
27	2.80	0.79	0	40	40	20
28	2.60	0.97	10	40	30	20
29	3.00	0.82	0	30	40	30
30	3.00	0.82	0	30	40	30
31	2.40	0.97	20	30	40	10
32	2.40	1.08	20	40	20	20
33	3.10	0.99	10	10	40	40
34	3.00	0.94	10	10	50	30
35	2.50	0.71	10	30	60	0
36	2.40	0.97	20	30	40	10

Table 72

Grade 11

Career Education Objectives Questionnaire

Implementation Level and Implementation Year Unspecified
Means and Standard Deviations of Pupil Responses to Items and
Proportion of Pupils Endorsing Each Alternative on Each Item
(N=280)

Item Number	Mean	S.D.	1	2	3
1	2.71	.57	4	45	51
2	2.73	.54	4	18	77
3	2.45	.59	5	43	53
4	2.50	.62	7	37	57
5	2.50	.67	10	33	57
6	2.74	.49	2	21	76
7	2.37	.69	12	38	49
8	2.20	.62	11	58	31
9	2.38	.61	7	48	45
10	2.12	.65	16	56	27
11	2.40	.64	8	43	49
12	2.33	.65	10	47	43
13	2.80	.46	3	15	83
14	2.62	.54	3	33	64
15	2.27	.66	12	49	39
16	2.58	.58	4	33	62
17	2.04	.69	22	52	26
18	2.28	.69	14	45	42
19	2.22	.65	13	53	35
20	2.60	.56	4	33	64
21	2.71	.48	1	27	72
22	2.28	.62	9	54	37
23	2.46	.59	5	44	51
24	2.49	.59	5	42	54
25	2.35	.69	12	40	48
26	2.40	.60	6	49	45
27	2.49	.60	6	40	55
28	2.86	.35	0	13	87
29	2.58	.55	3	36	61
30	2.85	.40	1	12	86
31	2.88	.37	1	9	90
32	2.90	.34	1	7	92
33	2.29	.60	7	56	37
34	2.41	.61	6	46	47
35	2.45	.68	11	37	52
36	2.62	.58	5	28	67
37	2.36	.69	12	40	48
38	2.55	.60	6	34	61
39	2.51	.66	9	31	60
40	2.31	.70	14	42	44
41	2.93	.31	1	4	95
42	2.35	.78	19	27	54
43	2.34	.77	18	29	52
44	2.43	.64	8	41	51
45	2.52	.73	14	19	66

Table 72 continued

Item Number	Mean	S.D.	1	2	3
46	1.36	.66	75	15	10
47	2.27	.66	12	49	39
48	2.53	.65	9	30	62
49	2.63	.61	7	23	70
50	2.40	.74	15	29	55
51	2.55	.64	8	28	64
52	2.48	.64	8	36	56
53	2.38	.65	9	43	47

Table 73

Grade 11

Work Values Inventory

Implementation Year and Implementation Level Unspecified

Means and Standard Deviations of Pupil Responses

to Items and Proportions of Pupils Endorsing Each Alternative on Each Item

(N=280)

Item Number	$\overline{X}$	S.D.	1	2	3	4	5
1	3.81	.95	2	7	25	41	25
2	4.33	.84	1	1	12	34	52
3	3.94	1.10	3	7	23	26	41
4	3.67	1.06	4	10	25	38	23
5	3.88	1.08	3	9	22	30	36
6	3.82	1.09	4	9	22	34	32
7	2.93	1.30	16	24	25	19	15
8	2.70	1.31	24	22	27	17	11
9	4.46	.82	0	3	8	27	62
10	4.53	.80	0	3	7	21	68
11	4.21	1.01	3	3	14	29	51
12	4.06	.93	0	7	16	39	37
13	4.40	.79	0	3	7	34	55
14	3.04	1.14	9	24	32	23	11
15	3.80	.82	1	4	25	51	18
16	3.59	1.06	4	9	30	35	21
17	4.33	.80	0	3	10	37	50
18	4.46	.83	2	0	6	30	61
19	4.42	.83	1	2	10	28	59
20	3.56	1.12	6	10	30	32	23
21	3.95	.97	3	5	18	43	31
22	4.44	.84	1	3	8	27	61
23	3.67	.98	4	6	29	42	20
24	3.66	1.00	3	9	27	41	20
25	3.78	1.12	4	9	23	32	32
26	4.20	.99	2	4	13	30	49
27	4.44	.75	0	1	8	34	56
28	4.14	.87	0	4	15	40	40
29	3.68	1.09	5	8	23	39	24
30	4.27	.84	0	2	14	36	47

Table 73 continued

Item Number	$\overline{X}$	S.D.	1	2	3	4	5
31	4.07	.93	1	4	18	38	38
32	3.86	.95	2	6	24	42	27
33	3.59	1.05	4	10	28	38	20
34	4.15	.85	1	4	12	45	38
35	4.52	.80	1	2	3	29	64
36	4.26	.98	3	3	14	27	54
37	3.28	1.10	7	16	31	33	13
38	4.06	.96	3	3	18	38	38
39	4.53	.68	0	1	8	28	63
40	3.29	1.18	9	14	34	25	18
41	3.25	1.28	12	18	24	27	20
42	4.08	.93	1	4	21	34	40
43	4.20	.86	2	0	15	40	42
44	4.28	.80	0	2	11	41	45
45	3.97	.98	3	6	15	44	32

Third, Fifth and Ninth Grade Experimental Teachers: A Global View

Tables 74, 75, 76 and 77 show results of frequency distributions for Teacher Career Education Participation Form and Career Education Objectives (Teacher Form). Means, standard deviations, and proportions of teachers endorsing each alternative for each item are listed for Implementation Year 1 and Implementation Year 2 where all Experimental Teachers in grades 3, 5, and 9 are taken together at Implementation Year 1 and Implementation Year 2.

Table 74

Grade 3, 5, 9
Experimental Group, Teacher Career Education Participation Form
Implementation Year I, All Implementation Levels
Means and Standard Deviations and Proportion of
Teachers Endorsing Each Alternative for Each Item
(N=28)

Item Number	Mean	S.D.	1	2	3	4
1	2.61	0.79	0	57	25	18
2	2.64	0.87	7	39	36	18
3	2.04	1.04	39	29	21	21
4	1.43	0.69	68	21	11	0
5	3.00	0.74	0	29	46	25
6	2.86	0.76	4	25	54	18
7	2.89	0.79	4	25	50	21
8	2.39	0.79	7	57	25	11
9	2.46	0.79	11	39	43	7
10	2.89	0.80	4	26	48	22
11	2.96	0.58	0	18	68	14
12	2.70	0.82	7	30	48	15
13	2.28	0.90	25	25	46	4
14	2.32	0.72	11	50	36	4
15	1.81	0.62	30	59	11	0
16	2.71	0.85	7	32	43	18
17	3.25	0.52	0	4	68	29
18	3.04	0.58	0	14	68	18
19	2.96	0.52	0	15	74	11
20	2.33	0.92	22	30	41	7
21	2.54	0.88	11	39	36	14
22	2.57	0.84	7	43	36	14
23	2.50	0.96	18	29	39	14
24	2.36	0.73	11	46	3	4
25	3.04	0.69	0	21	54	25
26	1.60	0.69	25	70	95	0
27	1.86	0.93	43	36	14	7

Table 75

Grade 3, 5, 9

Experimental Group, Teacher Career Education Participation Form
Implementation Year 2, All Implementation Levels
Means and Standard Deviations and Proportion of
Teachers Endorsing Each Alternative for Each Item
(N=28)

Item Number	Mean	S.D.	1	2	3	4
1	2.54	0.88	11	39	36	14
2	2.57	0.84	7	43	36	14
3	2.00	1.19	50	18	14	18
4	1.54	0.84	64	21	11	4
5	3.18	0.61	0	11	61	29
6	3.15	0.60	0	11	63	26
7	3.25	0.80	4	11	43	43
8	2.57	0.88	11	36	39	14
9	2.57	0.84	11	32	46	11
10	2.82	0.67	4	21	64	11
11	3.07	0.77	7	4	64	25
12	2.64	0.91	11	32	39	18
13	2.39	0.19	18	43	21	18
14	2.64	0.83	7	36	43	14
15	2.11	0.83	25	43	29	4
16	2.92	0.87	7	19	48	26
17	3.39	0.57	0	4	54	43
18	3.14	0.59	0	11	64	25
19	3.11	0.51	0	7	74	19
20	1.92	0.87	41	26	33	0
21	2.21	0.92	21	46	21	11
22	2.46	1.00	18	36	29	18
23	2.04	0.92	32	39	21	7
24	2.57	0.69	4	43	46	7
25	3.18	0.61	0	11	61	29
26	1.78	0.96	54	18	25	4
27	2.21	0.96	29	29	36	7

Table 76

Grade 3, 5, 9

Experimental Group. Teacher Career Education Objectives (Teacher Form)
Implementation Year 1, All Implementation Levels
Means and Standard Deviations and Proportion of Teachers Endorsing Each Alternative for Each Item

Item Number	Mean	S.D.	1	2	3	4
1	2.46	0.92	14	39	32	14
2	2.96	0.96	4	36	21	39
3	2.89	0.68	0	29	54	18
4	2.39	0.96	21	29	39	11
5	2.37	1.11	33	11	41	15
6	2.71	0.90	4	46	25	25
7	2.39	0.99	21	32	32	14
8	2.85	0.76	4	25	54	18
9	2.86	0.80	0	39	36	25
10	2.39	0.83	11	50	29	11
11	2.37	0.93	19	37	33	11
12	2.75	0.89	11	21	50	18
13	2.46	1.00	18	36	29	18
14	2.61	1.13	21	25	25	29
15	2.07	0.76	25	43	32	0
16	2.28	0.94	21	39	29	11
17	1.86	0.70	32	50	18	0
18	1.82	0.72	32	57	7	4
19	2.32	0.82	14	46	32	7
20	2.15	0.91	22	52	15	11
21	2.25	0.93	21	43	25	11
22	2.00	0.84	29	54	11	7
23	2.04	0.96	32	43	14	11
24	2.07	1.02	36	32	21	11
25	2.00	0.86	32	39	25	4
26	2.25	0.80	14	54	25	7
27	2.56	0.93	15	30	41	15
28	2.33	0.83	15	44	33	7
29	2.39	1.03	21	36	25	18
30	2.54	1.79	7	43	39	11
31	2.46	0.69	7	43	46	4
32	1.78	0.70	37	48	15	0
33	1.89	0.75	33	44	22	0
34	2.44	0.80	11	41	41	7
35	2.07	0.83	26	44	26	4
36	2.22	0.97	26	37	26	11

Table 77

Grade 3, 5, 9
Experimental Group. Teacher Career Education Objectives (Teacher Form)
Implementation Year 2, All Implementation Levels
Means and Standard Deviations and Proportion of Teachers Endorsing
Each Alternative for Each Item
(N=28)

Item Number	Mean	S.D.	1	2	3	4
1	2.64	0.78	4	43	39	14
2	2.93	0.86	4	29	39	29
3	2.86	0.70	0	32	50	18
4	2.57	0.88	11	36	39	14
5	2.64	0.83	11	25	54	11
6	2.93	0.72	4	18	61	18
7	2.37	0.97	22	30	37	11
8	2.75	0.70	4	29	57	11
9	2.89	0.83	0	39	32	29
10	2.18	0.77	18	50	29	4
11	2.18	0.86	25	36	36	4
12	2.46	0.84	11	43	36	11
13	2.50	0.79	4	57	25	14
14	2.61	0.92	11	36	36	18
15	2.21	0.83	18	50	25	7
16	2.36	0.95	21	32	36	11
17	1.96	1.02	41	33	15	11
18	1.96	1.00	39	36	14	11
19	2.11	0.96	29	43	18	11
20	2.25	1.00	25	39	21	14
21	2.21	0.99	29	32	29	11
22	1.78	0.83	43	39	14	4
23	1.86	0.93	43	36	14	7
24	2.14	1.08	36	29	21	14
25	1.86	0.89	39	43	11	7
26	2.14	0.89	21	54	14	11
27	2.46	0.84	11	43	36	11
28	2.39	0.88	14	43	32	11
29	2.14	0.85	21	50	21	7
30	2.43	0.84	14	36	43	7
31	2.54	0.79	7	43	39	11
32	1.70	0.99	59	19	15	7
33	1.92	0.96	37	44	7	11
34	2.25	0.99	25	37	25	13
35	1.88	0.83	36	44	16	4
36	1.88	0.83	36	44	16	4

Comparison Teachers

Tables 78-83 show results of frequency distributions for Comparison Teachers for Grades K-12 and for multi-grade context areas (labeled nongraded on tables) for Teacher Career Education Participation Form.

Means and standard deviations for grades K-12 and nongraded are shown in Tables 78, 80 and 82.

Proportions of Comparison Teachers endorsing each alternative for each item are shown in Tables 79, 81 and 83.

Table 78

Grades K-4
Comparison Group Teachers
Career Education Participation Form
Means and Standard Deviations by Grade Level

Item Number	K (N=11)		1 (N=104)		2 (N=105)		3 (N=27)		4 (N=40)	
	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.
1	1.64	0.67	2.41	0.79	1.52	0.69	2.19	0.68	1.28	0.45
2	1.45	0.69	2.44	0.89	1.46	0.66	2.27	0.72	1.30	0.46
3	1.18	0.40	1.64	0.89	1.47	0.73	1.26	0.53	1.17	0.38
4	1.73	0.65	1.77	0.87	1.35	0.56	1.63	0.79	1.40	0.71
5	3.09	0.30	3.07	0.65	2.93	0.76	3.04	0.65	2.92	0.95
6	2.67	0.87	2.91	0.78	2.62	0.91	2.56	0.85	2.46	1.04
7	2.73	0.47	2.82	0.76	2.72	0.83	2.67	0.92	2.64	0.87
8	1.67	0.50	2.17	0.75	1.77	0.84	2.27	0.78	1.79	0.81
9	1.70	0.67	2.33	0.78	1.78	0.85	2.22	0.70	1.79	0.83
10	2.27	1.19	2.74	0.82	2.11	1.03	2.52	0.80	1.98	1.07
11	2.73	0.65	2.96	0.63	2.94	0.79	3.07	0.55	2.64	0.87
12	2.09	0.83	2.55	0.69	2.04	0.91	2.52	0.70	1.90	0.84
13	1.56	0.73	2.32	0.85	1.92	0.79	2.19	0.88	1.90	0.85
14	1.67	0.67	2.17	0.78	1.90	0.73	2.15	0.82	1.78	0.73
15	1.11	0.33	1.75	0.84	1.44	0.66	1.84	0.80	1.42	0.60
16	1.75	0.71	2.57	0.85	1.99	0.83	2.44	0.80	1.70	0.79
17	3.00	0.44	3.13	0.64	3.04	0.73	3.04	0.76	2.93	0.83
18	3.09	0.54	3.00	0.61	2.87	0.78	2.93	0.73	2.75	0.78
19	3.09	0.54	3.08	0.62	2.84	0.73	2.93	0.73	2.77	0.78
20	1.00	0.00	1.47	0.67	1.27	0.49	1.46	0.71	1.35	0.58
21	1.11	0.33	2.12	0.98	1.35	0.58	2.04	0.98	1.15	0.36
22	1.11	0.33	2.13	0.75	1.41	0.69	2.19	1.18	1.23	0.66
23	1.22	0.44	2.13	0.88	1.55	0.78	2.07	1.03	1.38	0.78
24	2.36	1.03	2.71	0.74	2.35	0.86	2.48	0.70	2.25	1.03
25	2.60	0.70	3.00	0.65	2.83	0.84	2.84	0.83	2.50	0.89
26	1.36	0.67	1.65	0.94	1.34	0.67	1.59	0.93	1.41	0.75
27	1.36	0.67	1.86	0.94	1.56	0.83	1.63	0.88	1.53	0.85

Table 79

Grades K-4

Comparison Group. Teacher Career Education Participation Form

Proportion of Teachers Endorsing Each Alternative on Each Item by Grade Level

Item Number	K (N=11)				1 (N=104)				2 (N=105)				3 (N=27)				4 (N=40)			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
1	45	45	9	1	11	47	34	9	58	33	8	1	11	63	22	4	72	27	0	0
2	64	27	9	0	16	37	36	12	63	29	7	1	12	54	31	4	70	30	0	0
3	82	18	0	0	57	29	7	7	63	29	5	3	78	19	4	0	82	17	0	0
4	36	55	9	0	49	29	19	3	69	27	4	0	52	37	7	4	70	22	5	2
5	1	0	91	9	2	12	64	22	7	11	64	18	0	19	59	22	11	16	43	30
6	11	22	56	1	3	26	47	24	16	19	52	13	11	33	44	11	22	30	30	19
7	0	27	73	0	4	28	50	17	10	21	54	14	11	30	41	19	8	38	36	18
8	33	67	0	0	17	53	26	4	46	34	17	3	12	58	23	8	42	39	16	3
9	40	50	10	0	14	45	37	5	45	36	15	4	7	70	15	7	44	36	18	3
10	36	18	27	18	10	21	55	14	38	23	29	10	7	44	37	11	45	25	17	13
11	9	9	82	0	3	13	70	15	8	10	62	20	11	70	19	0	13	23	51	13
12	27	36	36	1	6	38	51	5	34	33	28	5	7	37	52	4	40	30	30	0
13	56	33	11	0	17	41	34	8	32	47	18	3	22	44	26	7	41	28	31	0
14	56	22	22	0	19	48	29	4	29	55	13	3	19	56	19	7	40	42	17	0
15	89	11	0	0	49	30	20	2	63	32	3	2	36	48	12	4	63	32	5	0
16	37	50	13	0	10	37	39	14	31	41	24	3	7	57	30	11	50	30	20	0
17	0	9	82	9	3	6	67	25	5	9	62	24	4	15	56	26	7	15	55	22
18	0	9	73	18	3	10	72	15	7	17	59	18	0	30	48	22	7	22	57	13
19	0	9	73	18	2	10	67	21	7	14	66	12	4	19	59	19	10	13	67	10
20	100	0	0	0	63	27	10	0	76	22	2	0	65	23	12	0	70	25	5	0
21	89	11	0	0	33	33	25	10	70	25	5	0	33	41	15	11	85	15	0	0
22	89	11	0	0	20	51	26	3	69	22	8	1	41	19	22	19	88	5	5	2
23	78	22	0	0	27	39	28	6	61	25	12	2	37	30	22	11	77	10	10	3
24	18	45	18	18	3	37	47	14	18	37	37	8	7	41	48	4	27	35	22	15
25	0	50	40	10	3	12	67	18	8	21	51	20	4	31	42	23	13	37	37	13
26	73	18	9	0	60	24	9	8	76	17	5	2	63	22	7	7	72	18	8	3
27	73	18	9	0	45	31	17	7	61	25	10	4	59	22	15	4	65	22	7	5

Table 80

Grades 5-9
Comparison Group Teachers
Career Education Participation Form
Means and Standard Deviations by Grade Level

Item Number	5 (N=32)		6 (N=36)		7 (N=87)		8 (N=54)		9 (N=33)	
	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.
1	2.69	0.54	1.74	0.61	2.02	0.80	1.98	0.74	2.45	1.00
2	2.73	0.58	1.67	0.72	1.91	0.78	1.96	0.85	2.13	0.83
3	2.78	0.71	2.26	1.07	1.46	0.77	1.63	0.88	1.58	0.85
4	1.88	0.94	1.42	0.65	1.22	0.62	1.32	0.70	1.53	1.02
5	2.87	0.55	3.14	0.55	2.97	0.73	2.78	0.80	3.06	0.72
6	3.06	0.56	2.88	0.64	2.98	0.81	2.88	0.73	3.12	0.70
7	2.91	0.86	2.85	0.70	2.98	0.76	2.67	0.75	3.24	0.71
8	2.69	0.64	1.94	0.97	2.26	0.90	2.04	0.82	2.52	0.97
9	2.72	0.68	2.00	0.98	2.25	0.82	2.09	0.76	2.30	0.92
10	2.81	0.54	1.91	0.91	2.62	0.82	2.61	0.12	2.87	0.96
11	3.06	0.50	2.86	0.65	2.76	0.63	2.57	0.72	2.82	0.73
12	2.87	0.62	2.17	0.79	2.44	0.80	2.22	0.70	2.59	0.87
13	2.75	0.62	2.34	0.97	2.07	0.86	2.06	0.88	2.55	0.94
14	2.72	0.63	2.17	0.79	2.34	0.79	2.06	0.67	2.48	0.87
15	2.32	0.70	2.00	0.85	2.15	0.91	2.11	0.90	2.45	0.90
16	2.84	0.45	2.50	0.93	2.42	0.79	2.28	0.76	2.73	0.72
17	3.22	0.49	3.21	0.42	3.17	0.62	3.02	0.71	3.16	0.72
18	3.13	0.61	2.94	0.60	2.93	0.70	2.58	0.70	2.84	0.77
19	2.97	0.47	2.97	0.53	2.87	0.68	2.54	0.58	2.82	0.77
20	2.06	0.81	1.45	0.75	2.35	0.94	2.23	0.93	2.53	0.92
21	2.48	0.77	1.36	0.74	1.99	0.77	1.78	0.74	2.32	0.82
22	2.72	0.73	1.91	0.92	1.64	0.80	1.57	0.80	2.09	0.96
23	2.75	0.72	2.15	0.91	1.80	0.86	1.91	0.84	2.15	0.97
24	2.66	0.65	2.49	0.74	2.18	0.83	2.04	0.81	2.09	0.86
25	3.22	0.61	3.12	0.74	3.07	0.71	3.06	0.71	3.27	0.63
26	1.90	1.04	1.37	0.65	1.67	0.96	1.53	0.85	2.12	0.93
27	2.03	0.90	1.66	0.76	1.77	0.90	1.66	0.83	2.27	0.91

Table 81

Grades 5-9
Comparison Teachers, Career Education Participation Form
Proportion of Teachers Endorsing Each Alternative on Each Item by Grade Level

Item Number	Fifth Grade (N=32)				Sixth Grade (N=36)				Seventh Grade (N=87)				Eight Grade (N=54)				Ninth Grade (N=33)			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
1	34	63	3	0	34	57	9	0	24	55	15	6	26	52	11	1	15	45	18	21
2	3	23	70	3	44	47	6	3	32	49	15	4	35	35	15	1	19	59	13	9
3	3	28	56	13	29	34	20	17	68	22	7	3	59	22	8	2	58	32	3	6
4	44	31	19	6	67	25	8	0	86	8	4	2	79	11	4	1	72	16	0	13
5	0	22	69	9	0	9	69	23	1	24	51	23	6	27	26	9	0	22	50	28
6	0	13	69	19	0	26	59	15	4	23	46	28	4	21	28	8	3	9	61	27
7	9	13	56	22	0	32	50	18	3	20	53	24	4	39	24	7	0	15	45	39
8	3	31	59	6	40	34	17	9	21	42	28	9	28	44	13	2	15	36	30	18
9	6	22	66	6	38	32	21	9	15	54	22	9	22	48	15	1	24	27	42	6
10	3	16	78	3	39	36	18	6	8	34	45	13	11	30	25	7	9	24	36	30
11	0	9	75	16	3	20	66	11	1	31	58	9	4	45	22	5	3	27	55	15
12	0	26	61	13	17	54	23	6	11	43	38	9	14	53	16	1	9	37	37	16
13	0	34	56	9	20	40	26	14	27	45	22	6	30	41	13	3	12	39	30	18
14	0	37	53	9	20	46	31	3	10	55	26	9	19	56	13	0	12	39	36	12
15	10	52	35	3	32	38	26	3	25	44	22	9	26	46	10	5	12	45	27	15
16	0	19	78	3	18	26	44	12	10	49	32	10	13	52	16	3	3	33	52	12
17	0	3	72	25	0	0	79	21	0	9	64	27	0	24	26	13	0	19	47	34
18	0	13	63	25	0	21	65	15	1	24	55	20	4	42	24	4	3	28	50	19
19	0	13	78	9	0	15	73	12	0	30	53	17	4	38	30	0	3	30	48	18
20	29	35	35	0	70	15	15	0	23	30	38	10	26	32	18	4	13	37	34	16
21	13	29	55	3	76	15	6	3	28	48	22	2	39	46	7	1	16	44	34	6
22	6	25	59	9	43	26	29	3	54	31	13	2	60	25	7	1	31	37	22	9
23	3	31	53	13	27	36	30	6	45	34	18	4	36	42	10	2	27	42	18	12
24	0	44	47	9	9	40	46	6	20	49	24	7	26	47	12	2	22	56	13	9
25	0	9	59	31	3	12	55	30	0	21	50	29	2	17	30	14	0	9	55	36
26	48	23	19	10	71	20	9	0	61	19	13	7	64	25	3	3	27	42	21	9
27	34	31	31	3	49	40	9	3	50	28	17	5	53	32	6	2	21	39	30	9

Table 82

Grades 10-12 and Nongraded
Comparison Group. Teachers Career Education Participation Form
Means and Standard Deviations by Grade Level and for All Comparison Teachers

Item Number	Grade 10 (N=32)		Grade 11 (N=10)		Grade 12 (N=9)		Nongraded (N=307)		Comparison Teachers (N=887)	
	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.
1	2.16	1.10	2.10	1.20	2.11	0.93	2.07	0.94	2.02	0.87
2	2.13	0.88	2.10	1.10	2.33	0.87	2.05	0.94	1.99	0.89
3	1.63	0.94	1.67	0.87	2.11	1.27	1.73	0.86	1.66	0.87
4	1.56	0.88	1.30	0.67	1.78	1.09	1.59	0.89	1.52	0.82
5	2.97	0.60	2.90	0.88	2.89	0.78	3.08	0.72	3.01	0.72
6	3.13	0.76	3.25	0.71	2.88	0.99	2.94	0.83	2.88	0.83
7	3.00	0.76	3.22	1.09	3.00	0.87	3.01	0.83	2.90	0.81
8	2.56	1.16	2.40	1.08	2.00	0.87	2.34	0.98	2.20	0.93
9	2.50	1.02	2.40	1.08	2.00	0.87	2.35	0.96	2.22	0.90
10	3.38	1.10	2.56	1.24	2.00	0.71	2.48	1.00	2.46	0.97
11	3.19	0.59	3.40	0.70	2.89	0.93	2.99	0.71	2.92	0.71
12	2.50	1.01	2.56	1.13	2.00	0.87	2.45	0.91	3.38	0.87
13	2.44	1.01	2.40	1.17	2.56	1.01	2.17	0.93	2.18	0.91
14	2.77	0.94	2.60	0.97	2.67	1.32	2.43	0.92	2.28	0.87
15	2.53	1.02	2.10	0.99	2.44	1.13	2.30	1.00	2.05	0.95
16	2.68	1.05	2.88	0.78	2.56	0.88	2.49	0.92	2.41	0.89
17	3.39	0.50	3.50	0.97	3.11	0.60	3.27	0.62	3.17	0.65
18	3.03	0.82	3.20	1.03	3.11	0.60	3.01	0.67	2.95	0.70
19	3.17	0.75	3.10	0.88	2.75	0.89	3.05	0.65	2.95	0.68
20	2.99	0.82	3.11	1.05	2.75	1.04	2.46	1.00	2.06	1.01
21	2.41	0.98	2.60	0.84	2.22	0.44	2.01	0.94	1.91	0.91
22	2.00	0.88	2.40	0.84	2.00	0.87	1.77	0.91	1.80	0.89
23	1.78	0.79	2.20	0.92	1.78	0.83	1.81	0.92	1.87	0.91
24	2.31	0.82	2.30	1.16	2.22	0.97	2.42	0.86	2.38	0.85
25	3.10	0.88	3.20	0.42	3.11	0.78	3.08	0.70	3.02	0.74
26	2.03	1.05	1.40	0.70	1.89	0.93	1.80	0.99	1.67	0.93
27	1.97	1.00	1.40	0.70	2.22	0.97	1.92	0.98	1.81	0.93

Table 83

Grade 10-12 and Nongraded
Comparison Group, Teacher Career Education Participation Form
Proportion of Teachers Endorsing Each Alternative on Each Item
By Grade Level and for All Comparison Teacher

Item Number	Tenth Grade (N=32)				Eleventh Grade (N=10)				Twelfth Grade (N=9)				Nongraded (N=307)				All Teachers (N=887)			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
1	39	19	29	13	40	30	10	20	22	56	11	11	31	40	18	10	31	43	19	7
2	29	32	35	3	30	50	0	20	11	56	22	11	33	37	21	8	35	38	21	6
3	63	19	13	6	56	22	22	0	44	22	11	22	49	33	13	5	55	28	12	5
4	63	25	6	6	80	10	10	0	56	22	11	11	63	21	10	6	65	22	9	4
5	0	19	65	16	0	40	30	30	11	0	78	11	3	15	55	28	3	16	58	23
6	3	13	52	32	0	13	50	37	13	13	50	25	7	16	52	24	7	20	51	22
7	3	19	53	25	11	11	22	56	11	0	67	22	5	18	47	30	5	23	49	23
8	25	22	25	28	20	40	20	20	33	33	33	0	23	34	29	14	25	39	26	10
9	19	31	31	19	20	40	20	20	33	33	33	0	23	32	33	12	24	38	29	8
10	25	34	19	22	33	0	44	22	22	56	22	0	22	25	37	16	21	27	38	14
11	0	9	63	28	0	10	40	50	11	11	56	22	3	18	58	22	4	19	60	18
12	20	27	37	17	22	22	33	22	33	33	33	0	17	33	38	12	17	36	38	8
13	22	28	34	16	30	20	30	20	11	44	22	22	28	34	30	8	26	38	29	8
14	7	37	30	27	10	40	30	20	33	0	33	33	18	34	36	13	19	43	29	9
15	16	37	25	22	30	40	20	10	22	33	22	22	24	37	24	15	34	37	20	9
16	16	26	32	26	0	33	44	22	11	33	44	11	16	33	37	14	16	37	36	11
17	0	0	61	39	10	0	20	70	0	11	67	22	1	6	58	35	2	8	60	29
18	3	22	44	31	10	10	30	50	0	11	67	22	0	20	57	23	2	20	58	20
19	3	10	53	33	10	0	60	30	13	13	63	13	1	16	60	23	3	18	64	18
20	6	16	53	25	11	11	33	44	13	25	37	25	22	26	36	16	38	26	26	9
21	22	28	37	13	0	60	20	20	0	78	22	0	35	38	18	9	40	35	19	6
22	31	44	19	6	10	50	30	10	33	33	33	0	50	29	16	6	48	30	18	5
23	44	34	22	0	30	20	50	0	44	33	22	0	47	32	15	6	43	32	19	5
24	22	25	53	0	30	30	20	20	22	44	22	11	15	39	36	10	15	40	35	9
25	3	23	33	40	0	0	80	20	0	22	44	33	1	17	54	27	3	18	53	25
26	42	23	26	10	70	20	10	0	44	22	33	0	52	25	15	9	58	23	12	7
27	43	23	27	7	70	20	10	0	33	11	56	0	43	31	18	9	48	29	17	6

APPENDICES

Appendix A

Instruments

Teacher No.:____________________________ Date:____________________________

Grade and/or Subject:____________________ School:__________________________

Teacher Career Education Participation Form

In a continuing effort to improve the effectiveness of Career Education in the Corpus Christi I.S.D., it is necessary to identify the types of teacher participation in this Program. Therefore, you are asked to rate the degree of your participation in the Career Education Program on the scales below. Simply place an "X" on the line that best describes the degree of your response to each of the items below. You may feel that some items are somewhat inappropriate. We understand that the items are not equally relevant at each grade level and that teachers will differ in the degrees of their emphasis on various activities. Please do not omit any items. Thank you!

	Not at All	To A Slight Degree	To A Great Degree	To A Very Great Degree
1. I have a planned Career Education (CE) program.	____	____	____	____
2. I use printed resource materials to enhance CE.	____	____	____	____
3. I use outside speakers to enhance CE.	____	____	____	____
4. I use field trips for CE enrichment.	____	____	____	____
5. I am flexible in classroom management.	____	____	____	____
6. I have strong administrative (principal, central office, etc.) support for CE.	____	____	____	____
7. I believe that CE is an important part of the educational program.	____	____	____	____
8. I encourage students to be involved in planning CE programs and activities.	____	____	____	____
9. I encourage students to be involved in the implementation of CE programs and activities.	____	____	____	____
10. My CE programs and activities are interwoven with the regular educational curriculum.	____	____	____	____
11. I promote student self-understanding with regard to their strengths and weaknesses.	____	____	____	____
12. I use CE concepts in non-instructional ways.	____	____	____	____
13. I help students identify their career interests through the use of questions and/or inventories.	____	____	____	____

	Not at All	To A Slight Degree	To A Great Degree	To A Very Great Degree
14. I stress career decision-making skills in my classroom activities.	____	____	____	____
15. I include teaching activities which help students in seeking and finding jobs.	____	____	____	____
16. I demonstrate enthusiasm and energy toward CE.	____	____	____	____
17. I encourage and maintain a high degree of rapport with my students.	____	____	____	____
18. I have created ways to promote and enhance positive self-concept attitudes in my students.	____	____	____	____
19. I create and maintain an atmosphere in which students find it fun to learn.	____	____	____	____
20. When students have questions concerning careers, I refer them to the Career Center and/or Career Corner or Area.	____	____	____	____
21. I use the information from the Career Center and/or Career Corner or Area to enhance my teaching.	____	____	____	____
22. I use the Career Guidance Specialist or Consultant to develop and implement CE in my classroom.	____	____	____	____
23. I use the Counselor (Secondary or Elementary) to develop and implement CE in my classroom.	____	____	____	____
24. I help my students to explore their community in an effort to help them understand their relationship to it.	____	____	____	____
25. I have a good understanding of the world of work.	____	____	____	____
26. I use part of my "Comp. Time" for learning about Career Education and developing techniques for teaching CE.	____	____	____	____
27. I use part of my Staff Development/In-Service time for learning about Career Education and developing techniques for teaching CE.	____	____	____	____

75/RM-PL

Teacher No.: ______________________

Date: ______________________

Grade and/or Subject: ______________________

School: ______________________

Career Education Objectives
(Teacher Form)

Teachers: You may or may not have been involved in a specially identified career education plan in your classroom during this school year. In any event, please rate your students on the scale below by marking an "X" on the line which best describes the percentage of students in your class whom you feel meet each of the following objectives. We understand that some of the objectives may not be appropriate at certain grade levels and that every teacher will not have been able to emphasize equally every objective. Since there are no "correct" answers, please give us your best appraisal of the situation in your class. Please do not omit any items.

	Percent Categories			
	1-25%	26-50%	51-75%	75-100%
What percent pupils in your class are able to:				
1. describe their own current abilities and limitations.	______	______	______	______
2. describe their current interests and values.	______	______	______	______
3. display positive attitudes toward themselves.	______	______	______	______
4. recognize that social forces influence their development.	______	______	______	______
5. recognize that economic forces influence their development.	______	______	______	______
6. recognize that educational forces influence their development.	______	______	______	______
7. recognize that cultural forces influence their development.	______	______	______	______
8. demonstrate generally useful numerical skills.	______	______	______	______
9. demonstrate generally useful communication skills.	______	______	______	______
10. demonstrate generally useful information processing skills.	______	______	______	______
11. demonstrate generally useful decision-making skills.	______	______	______	______
12. demonstrate generally useful interpersonal skills.	______	______	______	______
13. recognize the bases of various work values.	______	______	______	______
14. have positive attitudes toward paid and unpaid work.	______	______	______	______

	Percent Categories			
	1-25%	26-50%	51-75%	75-100%
15. describe the major duties and required abilities of different types of paid and unpaid work.				
16. understand the differences in work conditions and life styles associated with different types of paid and unpaid work.				
17. describe the entry requirements for major types of paid and unpaid work.				
18. understand the impact of social and technological change on paid and unpaid work.				
19. specify factors that affect work success and satisfaction.				
20. associate their own abilities and limitations with possible success in present or future paid and unpaid work.				
21. relate their personal interests and values to types of paid and unpaid work and their associated life-styles.				
22. identify, locate, and utilize sources of information to solve career decision-making problems.				
23. determine the potential for future advancement/personal growth in work of their choosing.				
24. understand the steps to be taken and the factors to be considered in career planning.				
25. demonstrate active involvement in career decision-making.				
26. plan their work effectively.				
27. adapt to varied work conditions.				
28. demonstrate a positive attitude toward the concept of quality in relation to a work task.				
29. demonstrate a positive attitude toward conservation of environmental and human resources in accomplishing work tasks.				
30. demonstrate a positive attitude toward responsibility for their own behavior and accomplishment of self-imposed work tasks.				
31. demonstrate a desire for continuous learning, both in school and out.				

	Percent Categories			
	1-25%	26-50%	51-75%	76-100%
32. identify, locate, and utilize sources that contain information about existing paid and unpaid work possibilities.				
33. demonstrate skills required in applying for and accepting work.				
34. (will be) successful in being placed in a paid occupation, in further education, or in unpaid work that is consistent with their current career education upon leaving school.				
35. identify sources of additional education in major types of paid and unpaid work.				
36. identify the means to support additional education for themselves in major types of paid and unpaid work.				

75/RM-PL

Name:______________________________ Grade:__________ Date:______________

I.D. No.:________________ School:________________ Teacher:______________

Career Education Objectives Questionnaire
(Student Form: Elementary)

Students: Your class may or may not have been involved in a specially planned career education program as part of your regular school experience during this school year. Nevertheless, please use the "No" to "Yes" scale to describe yourself on each of the items below. Simply place an "X" on the line which best describes the degree to which you feel each statement is true of you.

	No	Somewhat	Yes
1. I can tell you what I do well and what I cannot do very well.	______	______	______
2. I can tell you what I like to do.	______	______	______
3. I like myself.	______	______	______
4. I know that other people are important to me.	______	______	______
5. I know that money is important to me.	______	______	______
6. I know that school is important.	______	______	______
7. I know that my family is important to me as I grow up.	______	______	______
8. I can do math.	______	______	______
9. I can talk to other people.	______	______	______
10. I understand what I'm learning in school.	______	______	______
11. I know how to decide what I want to do.	______	______	______
12. I can get along with others.	______	______	______
13. I know it's important to do my work on time.	______	______	______
14. I want to get a job when I'm older.	______	______	______
15. I know about different kinds of jobs.	______	______	______
16. I understand that all work is not the same and is done by different kinds of people.	______	______	______
17. I know that different jobs require different skills.	______	______	______
18. I understand that jobs change.	______	______	______

	No	Somewhat	Yes
19. I understand what it takes to be good at a job.	______	______	______
20. I know what I like about different jobs.	______	______	______
21. I have thought through my career plans.	______	______	______
22. I plan my work.	______	______	______
23. I can work well in different places.	______	______	______
24. I believe in doing a good job in whatever I do.	______	______	______
25. I believe that ecology and people should be used carefully in work.	______	______	______
26. I believe that I am responsible for my own behavior and for my work.	______	______	______
27. I want to continue to learn things, both in and out of school.	______	______	______
28. I know where to go to find out about a job for me.	______	______	______
29. I believe I am as smart as most of the pupils in my class.	______	______	______
30. I know as much about career education as most of the pupils in my class.	______	______	______
31. I expect to finish high school.	______	______	______
32. I expect to be going to college after I finish high school	______	______	______
33. I hear about career education in my classes.	______	______	______
34. I know what career education is.	______	______	______

Name:__________________________ Grade:________ Date:____________

I.D. No.:______________ School:______________ Teacher:____________

Career Education Objectives Questionnaire
(Student Form: Advanced)

Students: Your class may or may not have been involved in a specially planned career education program as part of your regular school experience during this school year. Nevertheless, please use the "No" to "Yes" scale to describe yourself on each of the items below. Simply place an "X" on the line which best describes the degree to which you feel each statement is true of you.

	No	Somewhat	Yes
1. I can describe my abilities and limitations.	______	______	______
2. I can describe my current interests and values.	______	______	______
3. I have a positive attitude toward myself.	______	______	______
4. I recognize that social forces influence my development.	______	______	______
5. I recognize that economic forces influence my development.	______	______	______
6. I recognize that educational forces influence my development.	______	______	______
7. I recognize that cultural forces influence my development.	______	______	______
8. I have useful numerical skills.	______	______	______
9. I have useful communication skills.	______	______	______
10. I have useful information processing skills.	______	______	______
11. I have useful decision-making skills.	______	______	______
12. I have useful interpersonal skills.	______	______	______
13. I recognize the importance of work values such as being on time and meeting deadlines.	______	______	______
14. I have positive attitudes toward the world of work.	______	______	______
15. I can describe the major duties and abilities required by different types of jobs.	______	______	______
16. I understand the differences in work conditions and life styles associated with different types of jobs.	______	______	______
17. I can describe the entry requirements for major types of jobs or job clusters.	______	______	______

	No	Somewhat	Yes
18. I understand the effects of social and technological change on jobs.	____	____	____
19. I can name the factors that affect job success and satisfaction.	____	____	____
20. I can relate my abilities and limitations to possible success in jobs.	____	____	____
21. I can describe my personal interests and values to types of jobs.	____	____	____
22. I can identify, locate, and utilize sources of information to make career decisions.	____	____	____
23. I can find out the potential for future advancement and personal growth in the work of my choosing.	____	____	____
24. I understand the steps to be taken and the factors to be considered in career planning.	____	____	____
25. I have thought through my career plans.	____	____	____
26. I plan my work effectively.	____	____	____
27. I adapt easily to a variety of work conditions.	____	____	____
28. I believe in doing a good job in whatever task I undertake.	____	____	____
29. I believe that natural resources should be conserved in performing work.	____	____	____
30. I believe that people have rights and feelings which should be respected as much as possible in accomplishing work.	____	____	____
31. I believe that I am responsible for my own behavior and for accomplishing tasks.	____	____	____
32. I want to continue to learn things, both in and out of school.	____	____	____
33. I can identify, locate, and use sources that contain information about existing job possibilities.	____	____	____
34. I know how to apply for work so that I stand a good chance of getting hired.	____	____	____
35. I believe I can get placed in a paid occupation based on what I have learned in school.	____	____	____
36. I believe I can go on to further education based upon what I have learned in school.	____	____	____

	No	Somewhat	Yes
37. I know where to find information about education required for major types of jobs of job clusters that I'm interested.	______	______	______
38. I believe I can find ways to support myself while getting the education required by jobs I'm interested in.	______	______	______
39. I believe I am as smart as the majority of pupils in my class.	______	______	______
40. I know as much about career education as the majority of pupils in my class.	______	______	______
41. I definitely expect to finish high school.	______	______	______
42. I expect to be going to college after I finish high school.	______	______	______
43. I hear about career education in my classes.	______	______	______
44. I know what career education is.	______	______	______
45. Career education is for all students.	______	______	______
46. Career education is only for students going to college.	______	______	______
47. I learn about clarifying personal values in school.	______	______	______
48. I learn about setting of goals in school.	______	______	______
49. I learn about making decisions in school.	______	______	______
50. I learn about the use of leisure time in school.	______	______	______
51. I learn about self awareness in school.	______	______	______
52. I learn about career awareness in school.	______	______	______
53. I learn about economic awareness in school.	______	______	______

Name:______________________________ Grade:__________ Date:____________

I.D. No.:________________ School:________________ Teacher:____________

Work Values Inventory
(Elementary Form)

The statements below mention some things that people consider important in their work. These things are satisfactions which people often want in their jobs or get as a result of their jobs. But these things are not all equally important; some are very important to some people but of little importance to others. Read or listen to the reading of each statement carefully and then decide how important it is for you. Use the numbers below to indicate how important each statement is to you.

5 means "Very Important"

4 means "Pretty Important"

3 means "Medium Important"

2 means "A Little Important"

1 means "Not Important"

Now circle one number by each statement below to show how important you think the item is to you in the kind of work you want to do. For example, if you think that work in which you get to do different things is Very Important, you should circle the "5" response. If you think the item is Not Important you should circle the "1" response. Or, you would circle the "2", "3", or "4" if you think the item is Somewhat Important.

NOW, CIRCLE ONE ANSWER FOR EACH ITEM BELOW.

Work in which you. . .

1. have to keep solving new problems. (1) (2) (3) (4) (5)
2. help others. (1) (2) (3) (4) (5)
3. can get a raise in pay. (1) (2) (3) (4) (5)
4. look forward to changes in your job. (1) (2) (3) (4) (5)
5. have freedom in your work. (1) (2) (3) (4) (5)
6. feel important in your work. (1) (2) (3) (4) (5)
7. need to be a good artist. (1) (2) (3) (4) (5)
8. are one of the gang. (1) (2) (3) (4) (5)
9. know your job will last. (1) (2) (3) (4) (5)
10. can be the kind of person you would like to be. (1) (2) (3) (4) (5)
11. have a boss who treats you fairly. (1) (2) (3) (4) (5)
12. like the place where you work. (1) (2) (3) (4) (5)

5 means "Very Important"

4 means "Pretty Important"

3 means "Medium Important"

2 means "A Little Important"

1 means "Not Important

13. get the feeling of having done a good day's work.	(1)	(2)	(3)	(4)	(5)
14. boss others.	(1)	(2)	(3)	(4)	(5)
15. try out new ideas and suggestions.	(1)	(2)	(3)	(4)	(5)
16. make something new.	(1)	(2)	(3)	(4)	(5)
17. know by the results when you've done a good job.	(1)	(2)	(3)	(4)	(5)
18. have a boss who is fair.	(1)	(2)	(3)	(4)	(5)
19. are sure of always having a job.	(1)	(2)	(3)	(4)	(5)
20. make the world a better place.	(1)	(2)	(3)	(4)	(5)
21. make your own decisions.	(1)	(2)	(3)	(4)	(5)
22. make enough money to live.	(1)	(2)	(3)	(4)	(5)
23. have to use your brain.	(1)	(2)	(3)	(4)	(5)
24. get to be the boss.	(1)	(2)	(3)	(4)	(5)
25. have rest rooms and lounges.	(1)	(2)	(3)	(4)	(5)
26. live the way you like when not working.	(1)	(2)	(3)	(4)	(5)
27. make friends with the people with whom you work.	(1)	(2)	(3)	(4)	(5)
28. know that others consider your work important.	(1)	(2)	(3)	(4)	(5)
29. do not do the same thing all the time.	(1)	(2)	(3)	(4)	(5)
30. feel you have helped another person.	(1)	(2)	(3)	(4)	(5)
31. do things to help other people.	(1)	(2)	(3)	(4)	(5)
32. do many different things.	(1)	(2)	(3)	(4)	(5)
33. are looked up to by others.	(1)	(2)	(3)	(4)	(5)
34. have good feelings about fellow workers.	(1)	(2)	(3)	(4)	(5)
35. live the kind of life you most enjoy.	(1)	(2)	(3)	(4)	(5)
36. have a good place in which to work.	(1)	(2)	(3)	(4)	(5)

5 means "Very Important"

4 means "Pretty Important"

3 means "Medium Important"

2 means "A Little Important"

1 means "Not Important"

37. help others plan their work. (1) (2) (3) (4) (5)

38. need to be ready to think. (1) (2) (3) (4) (5)

39. are paid enough to live right. (1) (2) (3) (4) (5)

40. are your own boss. (1) (2) (3) (4) (5)

41. make attractive products. (1) (2) (3) (4) (5)

42. are sure of another job in the company if present job ends. (1) (2) (3) (4) (5)

43. have a supervisor who understands me. (1) (2) (3) (4) (5)

44. see the results of your work. (1) (2) (3) (4) (5)

45. contribute new ideas. (1) (2) (3) (4) (5)

NAME____________________________________

The statements below represent values which people consider important in their work. These are satisfactions which people often seek in their *jobs* or *as a result of their jobs*. They are not all considered equally important; some are very important to some people but of little importance to others. Read each statement carefully and indicate how important it is for you.

5 means "Very Important"
4 means "Important"
3 means "Moderately Important"
2 means "Of Little Importance"
1 means "Unimportant"

(Fill in one oval by each item to show your rating of the statement.)

Work in which you . . . .

1. . . . have to keep solving new problems. ○○○○○
2. . . . help others. ○○○○○
3. . . . can get a raise. ○○○○○
4. . . . look forward to changes in your job. ○○○○○
5. . . . have freedom in your own area. ○○○○○
6. . . . gain prestige in your field. ○○○○○
7. . . . need to have artistic ability. ○○○○○
8. . . . are one of the gang. ○○○○○
9. . . . know your job will last. ○○○○○
10. . . . can be the kind of person you would like to be. ○○○○○
11. . . . have a boss who gives you a square deal. ○○○○○
12. . . . like the setting in which your job is done. ○○○○○
13. . . . get the feeling of having done a good day's work. ○○○○○
14. . . . have authority over others. ○○○○○
15. . . . try out new ideas and suggestions. ○○○○○
16. . . . create something new. ○○○○○
17. . . . know by the results when you've done a good job. ○○○○○
18. . . . have a boss who is reasonable. ○○○○○
19. . . . are sure of always having a job. ○○○○○
20. . . . add beauty to the world. ○○○○○
21. . . . make your own decisions. ○○○○○

5 means "*Very* Important"
4 means "Important"
3 means "Moderately Important"
2 means "Of Little Importance"
1 means "Unimportant"

22. . . . have pay increases that keep up with the cost of living. ○ ○ ○ ○ ○

23. . . . are mentally challenged. ○ ○ ○ ○ ○

24. . . . use leadership abilities. ○ ○ ○ ○ ○

25. . . . have adequate lounge, toilet and other facilities. ○ ○ ○ ○ ○

26. . . . have a way of life, while not on the job, that you like. ○ ○ ○ ○ ○

27. . . . form friendships with your fellow employees. ○ ○ ○ ○ ○

28. . . . know that others consider your work important. ○ ○ ○ ○ ○

29. . . . do not do the same thing all the time. ○ ○ ○ ○ ○

30. . . . feel you have helped another person. ○ ○ ○ ○ ○

31. . . . add to the well-being of other people. ○ ○ ○ ○ ○

32. . . . do many different things. ○ ○ ○ ○ ○

33. . . . are looked up to by others. ○ ○ ○ ○ ○

34. . . . have good contacts with fellow workers. ○ ○ ○ ○ ○

35. . . . lead the kind of life you most enjoy. ○ ○ ○ ○ ○

36. . . . have a good place in which to work (good lighting, quiet, clean, enough space, etc.) ○ ○ ○ ○ ○

37. . . . plan and organize the work of others. ○ ○ ○ ○ ○

38. . . . need to be mentally alert. ○ ○ ○ ○ ○

39. . . . are paid enough to live right. ○ ○ ○ ○ ○

40. . . . are your own boss. ○ ○ ○ ○ ○

41. . . . make attractive products. ○ ○ ○ ○ ○

42. . . . are sure of another job in the company if your present job ends. ○ ○ ○ ○ ○

43. . . . have a supervisor who is considerate. ○ ○ ○ ○ ○

44. . . . see the results of your efforts. ○ ○ ○ ○ ○

45. . . . contribute new ideas. ○ ○ ○ ○ ○

Now check to be sure that you rated every statement.

BCDEFGHIJ-MC-73210

END OF WORK VALUES INVENTORY.

Appendix B

Norm Data

Table 84
Grade 3
Work Values Inventory: Norm Data
Males
(N = 188)

Raw Score	SCALES														
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
15	80	87	86	82	85	93	88	95	81	86	84	80	90	88	94
14	52	68	66	58	61	81	69	84	53	66	60	52	74	70	83
13	39	55	53	45	48	69	56	75	39	51	49	40	61	57	72
12	30	45	42	34	40	58	46	67	29	39	41	33	51	45	59
11	22	37	31	24	30	48	35	55	22	29	32	26	40	36	48
10	16	29	23	15	20	37	22	42	14	20	23	19	28	27	37
9	10	22	16	8	15	29	14	33	9	14	17	13	19	17	27
8	6	15	10	5	11	22	9	26	6	10	12	9	12	11	19
7	4	9	6	3	7	16	6	18	4	6	8	5	7	7	12
6	2	5	4	2	4	10	4	11	3	3	5	3	5	3	7
5	1	3	3	1	3	7	3	8	2	2	3	2	3	2	4
4	1	2	2	1	2	5	2	5	2	2	2	1	1	1	2
3	1	1	2	1	1	3	2	2	1	2	2	1	1	1	1
2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Mean	12.80	11.69	12.01	12.68	12.23	10.69	11.90	10.26	12.82	12.16	12.09	12.63	11.53	11.81	10.80
S.D.	2.80	3.23	3.04	2.67	3.04	3.42	2.97	3.37	2.83	2.96	3.21	2.96	3.00	2.95	3.11

Table 85
Grade 3
Work Values Inventory: Norm Data
Females
(N =185)

Raw Score	SCALES														
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
15	74	91	87	84	79	91	89	95	84	84	83	77	90	87	93
14	47	74	68	57	51	78	70	86	56	61	62	46	74	67	80
13	35	58	54	40	38	67	53	77	38	47	52	33	61	54	69
12	25	45	39	26	27	56	38	67	25	35	39	23	54	44	58
11	18	32	26	15	19	42	27	55	18	25	26	18	41	32	46
10	11	20	18	8	12	29	18	40	12	15	16	14	26	21	33
9	6	12	12	5	6	23	13	31	8	11	11	10	18	15	24
8	5	8	8	3	4	19	10	24	5	7	7	8	11	9	18
7	4	5	6	1	3	15	6	15	2	5	5	6	6	6	12
6	3	3	4	1	2	9	4	8	2	4	4	4	4	4	6
5	2	2	2	1	1	5	2	5	1	2	2	2	2	3	4
4	1	1	1	1	1	3	1	3	1	1	2	1	2	2	3
3	1	1	1	1	1	2	1	2	1	1	1	1	1	2	2
2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Mean	13.10	11.95	12.22	13.03	13.03	11.09	12.12	10.41	12.95	12.48	12.34	13.05	11.55	12.01	11.00
S.D.	2.74	2.70	2.78	2.33	2.56	3.30	2.90	3.13	2.51	2.84	2.93	2.85	2.98	3.03	3.11

Table 86
Grade 3
Work Values Inventory: Norm Data
Sex Unspecified
(N = 81)

Raw Score	SCALES														
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
15	90	93	90	81	85	93	92	99	83	88	84	80	95	86	93
14	70	84	69	33	60	83	78	97	56	70	61	48	88	65	85
13	52	78	50	39	45	77	64	93	42	56	47	31	81	49	81
12	37	73	35	31	34	66	50	89	35	44	39	24	71	36	73
11	27	65	24	24	23	51	38	78	27	35	32	19	56	27	62
10	17	52	18	18	14	38	29	64	17	25	23	14	39	19	51
9	10	38	13	15	8	30	23	54	10	17	18	10	28	13	37
8	7	24	9	10	5	23	16	48	7	12	13	9	21	10	24
7	6	13	5	6	5	15	11	38	6	9	9	7	15	9	17
6	4	6	2	4	5	8	8	27	3	7	6	3	9	6	12
5	3	4	1	2	3	6	6	17	3	4	4	3	6	3	8
4	1	3	1	1	2	4	4	10	1	2	3	1	3	2	5
3	1	2	1	1	1	3	3	5	1	2	1	1	1	1	2
2	1	1	1	1	1	3	1	2	1	1	1	1	1	1	1
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Mean	12.17	10.10	12.33	12.50	12.57	10.48	11.26	8.27	12.57	11.78	12.09	12.98	10.36	12.23	9.98
S.D.	2.84	3.14	2.59	3.23	2.70	3.30	3.24	3.22	2.86	3.13	3.20	2.88	2.97	2.95	3.22

Table 87
Grade 5
Work Values Inventory: Norm Data
Males
(N = 206)

Raw Score	SCALES														
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
15	83	95	92	87	85	94	92	92	77	86	90	82	94	88	96
14	56	85	79	66	63	84	78	78	49	62	75	58	83	69	87
13	41	75	67	52	49	75	64	64	37	47	62	45	71	55	76
12	31	65	54	41	37	65	51	51	26	39	49	35	60	45	66
11	23	53	42	29	27	53	41	41	19	31	37	28	47	36	55
10	17	42	33	19	21	43	32	32	17	22	26	22	34	27	45
9	15	33	27	15	16	34	25	25	15	17	21	17	24	21	38
8	13	27	24	14	13	25	20	20	12	14	16	14	17	16	31
7	11	20	18	12	11	19	16	16	9	12	14	12	12	12	23
6	10	13	14	10	9	15	13	13	8	7	12	10	10	11	17
5	7	9	12	8	9	12	9	9	7	7	8	8	8	8	12
4	4	7	10	5	5	9	5	5	5	4	5	5	6	5	9
3	3	7	1	3	5	6	4	4	5	3	4	3	5	3	7
2	1	5	1	1	5	5	4	4	4	1	3	1	4	1	4
1	1	3	1	1	5	4	3	3	1	1	1	1	3	1	3
0	1	1	1	1	5	1	1.	1	1	1	1	1	1	1	1
Mean	12.28	10.07	10,46	11.82	11.68	10.06	10.91	8.57	12.50	11.88	11.22	12.03	10.70	11.46	9.80
S.D.	3.63	3.72	4.33	3.59	4.27	3.82	3.74	3.97	3.81	3.64	3.65	3.73	3.48	3.68	3.84

Table 88
Grade 5
Work Values Inventory: Norm Data
Females
(N = 208)

Raw Score	SCALES														
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
15	80	94	93	90	83	96	93	99	82	86	89	83	95	85	95
14	53	85	79	71	59	87	78	95	57	64	70	56	82	64	86
13	42	77	65	57	45	75	63	91	42	52	56	41	71	51	77
12	33	68	53	49	34	64	50	87	32	41	43	32	60	39	66
11	26	55	41	38	26	55	38	81	25	32	33	26	45	30	56
10	21	43	31	28	21	45	29	70	21	24	25	21	30	22	47
9	19	34	24	22	18	36	25	58	17	19	19	18	22	18	38
8	17	27	20	17	16	30	20	48	16	16	16	16	17	15	30
7	14	21	17	15	14	24	17	37	14	15	14	15	14	14	23
6	13	16	15	14	13	19	15	26	13	14	13	14	13	13	19
5	11	13	14	13	12	15	12	19	13	11	10	11	11	11	15
4	8	11	13	11	12	12	9	15	11	7	7	8	8	9	12
3	8	10	13	7	12	10	7	14	10	4	4	3	8	9	9
2	4	8	6	3	6	8	7	13	8	4	4	3	7	7	8
1	4	8	6	3	6	7	7	6	4	4	4	3	3	3	7
0	4	4	6	3	6	4	3	6	4	4	4	3	3	3	4
Mean	11.88	9.75	10.42	11.01	11.53	9.62	10.73	7.79	11.78	11.43	11.26	11.85	10.55	11.50	9.57
S.D.	4.38	4.16	4.61	4.26	4.77	4.23	4.18	3.95	4.47	4.25	4.15	4.30	3.94	4.30	4.18

Table 89
Grade 5
Work Values Inventory: Norm Data
Sex Unspecified
(N = 57)

Raw Score	SCALES														
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
15	79	89	83	87	79	96	85	96	68	76	82	76	81	83	91
14	49	76	58	66	52	86	67	86	32	49	54	47	56	61	72
13	35	62	41	49	35	70	54	80	20	44	37	35	48	52	56
12	26	46	28	34	21	58	39	75	13	36	25	27	41	42	45
11	21	36	19	25	14	46	29	63	11	25	19	22	33	31	34
10	14	27	15	18	9	32	23	48	10	18	14	16	25	18	26
9	8	18	13	13	9	21	16	39	7	14	10	13	18	10	20
8	8	10	11	13	6	15	7	33	4	11	10	11	13	6	13
7	6	5	7	10	4	11	3	24	4	8	6	7	9	6	6
6	6	3	4	10	3	5	3	16	3	4	4	3	4	4	3
5	4	3	3	4	1	3	1	11	3	3	3	1	3	3	1
4	1	3	1	3	1	3	1	6	3	3	3	1	1	1	1
3	1	1	1	1	1	1	1	4	1	1	3	1	1	1	1
2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Mean	12.85	11.63	12.60	12.16	13.07	10.98	12.16	9.65	13.63	12.53	12.72	12.82	12.11	12.25	11.74
S.D.	3.05	3.00	3.04	3.20	2.76	2.98	2.93	3.30	2.84	3.28	3.12	3.12	3.32	3.00	3.02

Table 90
Grade 9
Work Values Inventory: Norm Data
Males
(N = 266)

Raw Score	SCALES														
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
15	85	85	95	97	87	96	94	99	85	84	92	89	97	82	97
14	59	59	84	88	64	87	83	95	60	59	74	68	89	54	90
13	41	41	70	77	47	75	71	88	42	42	57	48	80	35	77
12	28	28	55	61	32	60	57	79	28	28	42	33	65	22	60
11	18	18	43	43	19	45	44	68	19	18	28	22	47	14	45
10	12	12	33	27	13	33	30	54	13	11	16	15	29	9	33
9	8	8	22	17	8	23	19	41	9	8	11	10	18	6	23
8	6	6	14	11	6	15	12	30	7	6	8	7	13	5	14
7	5	5	8	7	5	8	8	20	6	4	6	5	8	4	10
6	4	4	6	5	4	5	6	12	5	4	5	4	6	4	7
5	4	4	4	4	3	3	4	8	5	4	4	4	5	4	5
4	3	3	2	3	2	3	4	6	5	3	3	3	4	3	4
3	3	3	2	1	2	1	2	4	4	3	3	1	4	3	3
2	1	1	2	1	2	1	2	3	3	1	1	1	4	1	1
1	1	1	2	1	2	1	2	2	1	1	1	1	3	1	1
0	1	1	2	1	2	1	2	2	1	1	1	1	1	1	1
Mean	12.67	9.46	11.02	11.01	12.48	10.88	11.07	9.39	12.57	12.68	11.95	12.[illegible]	10.78	12.99	10.74
S.D.	3.01	3.09	3.14	2.87	3.00	3.00	3.13	3.15	3.15	3.02	3.04	2.98	3.00	2.93	3.06

Table 91
Grade 9
Work Values Inventory: Norm Data
Females
(N = 210)

Raw Score	SCALES														
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
15	92	98	97	98	90	95	96	99	81	83	94	88	97	84	98
14	76	95	88	90	70	85	86	95	54	56	78	69	89	56	89
13	60	90	75	76	49	72	71	88	38	40	60	53	76	35	75
12	45	80	60	60	31	54	54	78	24	25	45	35	58	21	58
11	34	66	45	43	20	36	37	63	15	14	31	19	40	14	43
10	23	53	32	30	12	23	25	45	9	8	18	13	24	10	30
9	14	41	20	19	7	15	18	32	5	4	11	7	13	7	19
8	8	28	12	11	5	10	11	21	4	2	8	4	8	5	13
7	7	17	8	6	5	7	7	11	3	2	6	3	5	4	11
6	5	9	5	3	4	5	5	7	2	2	5	3	5	2	8
5	3	6	3	2	3	3	3	5	2	1	3	5	4	2	6
4	2	4	1	2	2	2	2	3	2	1	2	1	3	2	4
3	2	2	1	1	1	1	1	2	2	1	1	1	2	2	2
2	1	1	1	[illegible]	1	1	1	1	1	1	1	1	2	1	1
1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1
0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Mean	11.75	9.59	10.98	11.06	12.50	11.37	11.30	9.63	13.05	13.07	11.84	12.50	11.20	13.04	10.90
S.D.	2.88	2.85	2.75	2.61	2.61	2.72	2.75	2.69	2.59	2.40	2.78	2.56	2.69	2.61	2.95

Table 92
Grade 11
Work Values Inventory: Norm Data
Males
(N = 158)

Raw Score	SCALES 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
15	84	98	96	97	88	99	96	99	89	87	94	86	97	83	97
14	59	93	87	87	65	94	87	97	67	62	78	65	90	58	91
13	41	87	77	74	42	82	73	94	52	43	60	48	80	41	79
12	26	80	59	56	23	68	56	84	39	32	43	32	68	28	63
11	18	69	41	39	14	54	41	67	24	20	28	18	50	15	47
10	14	57	28	25	9	38	30	52	14	13	17	12	30	8	33
9	9	43	19	14	7	25	22	38	7	10	10	8	17	5	22
8	6	28	12	9	6	17	16	25	4	7	7	5	11	5	14
7	5	17	7	6	5	11	10	15	4	5	6	5	6	4	9
6	5	10	5	5	5	7	7	10	4	4	5	4	4	4	7
5	4	7	4	4	4	4	4	7	4	3	4	3	3	4	5
4	3	5	3	3	3	3	3	4	4	3	3	3	3	4	4
3	3	3	3	3	3	1	1	3	3	3	3	3	3	3	1
2	1	1	1	1	3	1	1	1	1	1	1	1	1	3	1
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Mean	12.66	9.46	11.02	11.23	12.70	10.39	10.95	9.48	12.38	12.51	11.84	12.49	10.78	12.80	10.70
S.D.	3.09	3.06	2.94	2.85	2.92	2.87	3.10	2,79	2.95	3.04	2.98	2.97	2.79	3.04	2.98

Table 93
Grade 11
Work Values Inventory: Norm Data
Females
(N = 121)

Raw Score	SCALES														
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
15	92	99	96	98	90	95	95	98	84	85	95	88	95	83	95
14	81	95	89	90	71	83	83	94	58	63	83	68	87	57	85
13	68	88	80	79	52	71	69	87	40	48	68	50	75	39	76
12	48	82	65	64	33	57	55	77	28	35	50	35	60	26	63
11	31	70	43	42	20	43	40	64	21	26	36	24	45	19	48
10	21	57	27	26	14	31	25	49	16	19	27	16	32	14	34
9	13	45	20	21	10	21	16	35	12	12	20	11	20	10	23
8	9	31	14	16	7	15	12	24	9	7	13	9	12	8	16
7	7	21	10	12	5	12	8	15	7	5	7	7	8	7	12
6	7	14	8	10	2	9	6	11	7	5	6	7	6	7	10
5	6	10	6	7	2	7	6	9	6	2	5	7	5	5	8
4	5	7	5	5	2	5	5	6	5	2	5	5	5	2	6
3	2	6	5	5	2	2	5	5	2	2	5	5	5	2	5
2	2	5	2	5	2	2	2	2	2	2	2	2	5	2	2
1	2	2	2	2	2	2	2	2	2	2	2	2	5	2	2
0	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mean	11.45	9.14	10.72	10.64	12.21	10.86	11.13	9.67	12.42	12.21	11.19	12.08	10.82	12.55	10.60
S.D.	3.29	3.30	3.21	3.33	3.17	3.43	3.28	3.23	3.51	3.36	3.32	3.44	3.29	3.46	3.44